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HIGH SCHOOL DEPARTMENT OF STATE EDUCATIONAL ASSOCIATION.

PROCEEDINGS OF SEVENTH ANNUAL SESSION, AT PHILADELPHIA

THE opening session of the High School Department was held in the lecture room of the Boys High School, Tuesday, December 26th, at 2 p. m. President A. H. Welles, of Scranton, introduced Rev. Dr. L. W. Eckard who conducted the devotional exercises.

Dr. Robert Ellis Thompson, principal of the Central High School, of Philadelphia, was introduced, and welcomed the members of the Department, much as follows:

Mr. President, and members of the High School Department: It is a good thing to meet our co-workers, the men and women who are thinking upon our problems and meeting our difficulties. We are all doing the same work and are engaged in one of the noblest tasks entrusted to man. No body of men is doing more to insure the future welfare and prosperity of the country; and, while we have a history of which we may well be proud, we are not looking to the past with its victories, but to the future with its greater victories.

We bid you welcome this afternoon to Philadelphia, the most historic city in the land, despite the claims of Boston in this direction. Here the Declaration of Independence was signed and here the Constitution of the United States was adopted. Of peculiar interest to almost everybody in the state is Independence Hall, that is, to everybody outside of Philadelphia. All our visitors go there; Philadelphians do not. So if you have any friends in the city, take them along with you.

Philadelphia is not only an historical city but an educational city as well. Here was founded the first school in Pennsylvania, and one of the first private schools in this country, and it is to-day most prosperous. Charles Thompson, who was Secretary of the Continental Congress, was one of the first teachers. Philadelphia very early interested itself in higher education. Benjamin Franklin and others established the Academy of Philadelphia, which afterward became the College of Philadelphia, and finally in 1778, the University of Pennsylvania. This was the first institution of higher learning in America to prescribe no religious test, and was the first also to break away from the traditional college course in the "humanities" and introduce the study of science. You see Philadelphia has a right to be proud of its educational past.

We welcome you because Philadelphia has always been noted for its hospitality. Its streets, laid out in squares, are well adapted to visitors; and though this method has been scoffed at by many cities, I note that cities most recently developed are laying out their streets in the same manner. Philadelphia has welcomed many eminent people. Among these was Charles Kingsley who, while being entertained by George W. Childs, was asked by that gentleman what he most desired to see. He replied, "Bartram's Gardens." "Why, what are they?" asked Mr. Childs. He did not know of the magnificent gardens which that great naturalist had established in Philadelphia, in which he had gathered from every land the rarest specimens of vegetable life and to which he had devoted his life. These gardens are now under the care of the University and are open to inspection.

Philadelphia rejoices in your coming and expects to get good from your stay here. We welcome you to the Central High School, the second oldest in the country—only one in New England having preceded it. It has furnished to the country the two men, who possibly, more than any others, are responsible for the Coast Survey of the entire American coast. In its inception it met with the same kind of antagonism that the Jews met in building the second temple. Many declared that it was not the business of society to educate the children of individuals able to educate their own. But the school has continued in its quiet way to bring the benefits of a more liberal education to a great army of the youth of Philadelphia. Every year it sends about one hundred of its young men into Harvard and the other leading colleges of the East, and the University of Pennsylvania, which, owing to its convenience, gets the greatest number. Its graduates have

reflected credit upon the institution. Twice, Harvard has selected, as its candidates for the Rhodes scholarship, graduates of the Central High School.

Not long after its beginning the girls of Philadelphia, began to demand the same educational advantages as the boys enjoyed, and after much sacrifice and patient effort on the part of the teachers and the girls, the Girls' High School was established. Then came two Manual Training High Schools, then the South Philadelphia High School, and three high school annexes in different parts of the city. Finally, the William Penn High School, a magnificent institution for the commercial and vocational training of girls. But we hope they will continue to multiply until there are a score or more of such schools covering every portion of the 132 square miles embraced in the city of Philadelphia. The Central High School points with pride to the unsurpassed record of continuous work of one of its instructors Prof. Zephaniah Hopper, who graduated from the school in 1842 and for seventy years has been engaged in school work, since 1854 in our own high school. Our profession keeps men young, for two reasons. By keeping them in constant touch with young life and by denying them the luxuries that tend to shorten life.

And now again I bid you' welcome to our city, to our schools, and I hope your stay may be as pleasant as the Christmas just past.

The response to the address of welcome was given by Principal Charles S. Davis, of Steelton, as follows:

RESPONSE TO WELCOME.

Mr. President, Ladies and Gentlemen: I have not been much in favor of any formal welcome in this department, but I am glad to say that the eloquent address of Dr. Thompson has justified addresses of welcome for all time to come. We have long desired to have Dr. Thompson in touch with our department but never succeeded until to-day. The mountain would not come to Mahomet, so Mahomet has been compelled to come to the mountain. We are glad to come to Philadelphia. Formerly it was regarded educationally like New Jersey or any other foreign country. But a few years ago Philadelphia reached out and annexed Dr. Brooks. Later she reached out and annexed Dr. Brumbaugh, and that meant annexing a large part of educational Pennsylvania. Now Dr. Brumbaugh has caught the annexation fever and he seems about to annex the Philadelphia High Schools. When that is accomplished, these will become more than ever a part of the Pennsylvania High School Department. But they were active in this department earlier, Cheesman A. Herrick, John Moyer, C. C. Heyl, Lemuel Whittaker, Wm. L. Sayre, W. D. Lewis, Eugene Baker, Calvin Althouse. On our first programme at Reading, Prof Moffitt of the Central High School presented an excellent paper on English in the high school.

We are glad to come because Philadelphia educationally is noted among other things: For the thoroughness of the teachers' organization for professional improvement; for the oldest public manual training high school in the United States; for the first vocational high school for girls; for the first city league of home and school associations, resulting in very successful use of the schools as social centers; for open air schools for tuberculous pupils; for school gardens and open school play grounds; for children's welfare associations; for home and school visitors—that these two great educational forces may be led to co-operate and the teacher's sympathies be widened by knowledge of the adverse conditions under which many of her pupils labor; for her school athletics—on which subject many of us can speak from experience because of competing with some of the Philadelphia High Schools. So that whatever slurs may be cast on Philadelphia's slowness she certainly does not deserve them educationally.

We feel that we are at least measurably deserving of the cordial welcome we have received because we come with a record of achievement. We have not done all we hoped to do, and we have left undone many things we might have done and should have done. We have, however, grown from a small beginning at Reading in 1905, so small that a recitation room was ample for our accommodation, to a membership of over 400. Our programmes have been broad, well-presented, and thoroughly discussed. Without making a complete record we have had thirty-one papers dealing with the course of study, twelve on high school administration, nine on college entrance, four on high school inspection and supervision, four on the high school and its relation to the life of the community, with others on vocational work, professional improvement and school athletics.

Some results of our programmes and discussions are: High school inspection resulting in standardizing the high schools; college entrance concessions have been made and the spirit of friendly discussion has led others to express a willingness to meet our desires for improvement in this important phase of our work; normal schools are now giving credit for work done in approved high schools; there has been a general broadening effect on high school men, making them more tolerant and more generous in viewing one another's work; in fact there has been created a very much higher standard of professional ethics. If you will pardon a personal reference you will find it illustrated. A few years ago there was for about a month a vacancy in the superintendency in our own town. During that time only one person connected with public school work in Pennsylvania made application. He had been in the state but one year and has since moved out. Surely Pennsylvania's ethical standards among her teachers are moving to a high plane. In general we have greatly benefited because of the excellence of the programmes, the friendly personal contact with one another, and by sitting at the feet of distinguished educators of our own and other states.

We hope to prove ourselves worthy of Philadelphia's cordial welcome not only by our record of achievement but also by our promise

of future successes. A few things the future holds in store for us might profitably include the following:

1. A realization of the changed conditions under which our meetings are held. Formerly our winter meetings were held by ourselves—we were the "whole show"—and our work was more intensive because not interfered with by other educational attractions. While loyal to the parent body, we must fight against losing our identity as a strong Department This can be accomplished by strong programmes, liberal advertising, and persistent personal effort on the part not of the officers only but of every member.

2. The work of standardizing our high schools should continue and we should loyally support our high school inspectors that the end should be best reached—a standardizing based not alone on course of study but also on character of product as tested by service in civil and social uplift in the community.

3. The efforts to secure rational college entrance requirements should be continued, particularly in view of the increasingly friendly relations between the colleges and the high schools, until colleges will emphasize quality of work and habits of study and powers of attack instead of placing the emphasis on quantity of narrowly prescribed work. These efforts by our department should not cease until even the colleges for women will consent to be reasonable.

4. With no lessening of scholastic training, the Department should continue to demand a higher professional training for high school teachers, a preparation so practical in its nature that it will not end in enabling teachers to quote pedagogy, etc., but to apply it as well so that it may work out in real benefit to their pupils.

5. The new Code has materially strengthened the hands of the school authorities in their control of school athletics—a power that can be used to improve the present tendency toward clean sport. Indeed, it is now possible for all schools to control their sports instead of allowing athletics to control the school. We may even be able to convince some of our young people that winning the game is not all there is to athletics. Would it not be well for this Department to outline a very few reasonable eligibility rules that might be referred to authoritatively in case of differences between schools?

6. While fully recognizing the importance of the present tendency toward vocational work in our schools, might it not be well for the Department to consider the advisability of sounding warning note against the danger that the pendulum may swing too far in this direction and too far away from the ancient landmarks? The new is not necessarily right because it is new, nor the old wrong because it is old.

7. The Department might continue to emphasize the fact that the schools exist for the pupils and not for the teachers, that our duty is one of service and that our success is measured not by how much we can do for the brilliant few, but by how much raw material we can transform into finished product, the maximum of finished product with a minimum of waste.

8. The Department will doubtless continue its work of emphasizing the importance of the High School and the High School teacher as factors in the social and civic life of the community—again it is service.

9. After all, our great work—what we are all striving for—is High School efficiency. Some one has said that High School efficiency may all be summed up under three heads: 1. Get your pupils. 2. Hold your pupils. 3. Train your pupils.

In conclusion, we repeat that we thank Dr. Thompson for his kindly welcome and that we are glad to have an opportunity to meet in this magnificent building in the greatest city in our great Commonwealth, the city of William Penn and Benjamin Franklin and John Wanamaker and Boies Penrose and Rudolph Blankenburg, the City of Brotherly Love—since the election.

Miss Enola B. Guie, of Wilkes-Barre, presented the following paper on

ORAL EXPRESSION IN THE HIGH SCHOOL.

The subject resolves itself into four main divisions: The need of it, its place in the high school, its practical and educational value, and methods to be pursued in teaching it. During the last twenty years much attention has been given to the study of English in graded public schools, and especially in what we classify as secondary schools, high schools and academies. This has been due partly to the demand of colleges for certain preparation in English of applicants for admission, and partly to a general revival of interest in literature. In compliance with these two demands teachers have bent themselves to two tasks—to teach their pupils to understand and appreciate good literature, and to express themselves in writing. The result has been a great contribution to literature in the form of journalism, fiction, poetry and drama by young writers many of whom obtained the foundations of their literary education in the schools.

But when we come to consider the other means of expression—oral expression—we find neglect in teaching, with corresponding results. Schools that take pride in having native French and German teachers, and well-trained teachers in Latin and Greek who shall teach proper accent and intonation and pronunciation of these languages, take no pains whatever that the English they are so carefully studying and writing be pronounced with proper accent and intonation. They are not concerned that the thought so sought, the beauty of description, the tenderness of sentiment, the fierceness of passion found in poem, narration or drama, shall find expression in the sympathetic human voice. We have but to recall our experiences in our own classes to know that it is an exception that pupils can, in composed manner and in a clear voice, with distinct articulation and true enunciation, and in sympathetic intelligent intonations, recite a lesson of a few sentences; or read ten or fifteen lines of poetry or prose in the literature class with any sign of expression, or even with correct emphasis to express the simple

meaning. Neglect of instruction in oral expression is made evident also by teachers. As a class we are not noted for attractive address in school, nor as forceful speakers out of school. One often hears, "I am surprised to see that a man in his position should be such a poor speaker."

Turn from the school to the world, be introduced in society to the men and women who are pronouncing and inflecting their own language correctly in a musical tone, and your acquaintance will not be much extended. Europe derides us for our nasal, strident, throaty, ugly voices, all of which imputation we try to escape by blaming it upon the climate. Our pronunciations and inflections are subject to the tyranny of local standards. The New Englander will say "sofar," the Pennsylvanian, "bath," the Southerner, "poach," each persisting in these distinctions because of stubborn local pride. But each man is cosmopolitan in his literary tastes, for he reads Emerson, Bayard Taylor, and George Cable without offence to his territorial dignity. Visit the churches. Hear the dramatic story of Jacob, the beautiful songs of David, the thundering oration of Isaiah, the simple, sometimes lyrical narrative of the life of our Savior, the philosophy of Paul, the vision of John, not read, interpreted, but mouthed, mumbled, monotonously ground out in common grist from between automatic organs of speech. Then hear the sermon, fine in thought and composition, outraged by a disagreeable voice, misapplied emphasis, monotonous inflections, and spurts of noise meant to be eloquent delivery.

Come to our teachers' institutes. One lecturer strains a speech profound with learning, through his nasal cavity at a high pitch, with explosive force for sixty weary minutes. Another cannot hold himself erect, but leans on this and props himself on that; and then this limp flesh spends another hour delivering his address in a monotonous trickle-trickle, trickle-trickle, trickle-trickle, until you are almost mad. Exaggeration, do you say? Nervous notion? As every argument must have a scientific support these days, I refer to high authority—Thomas Edison. Irving Bacheller in his story in Hampton's Magazine, "The Soloist of Center Pond," says that Edison once told him that, while experimenting with the phonograph, he noticed that certain phrases of music repeated daily would so effect his nerves as to produce nausea. In the story, Old Pelopides Star loved to tell tales, and did so continually, in a monotonous, penetrating voice. One day those who daily had to endure him, introduced to him one Grimshaw who liked to listen to stories. Grimshaw and Pelopides Star spent the day together, Pelopides droning his stories, Grimshaw listening. When nightfall came, and they who that day had rested from the sound of Uncle Peel's voice asked Mrs. Star where Mr. Grimshaw was, she said, "Gone to bed. Said he was sick to his stummick."

From the church and the platform we turn to the bar as one of the most practical of the professions in which public speaking is often required—and how seldom do we hear there, or in its attendant profession, the legislature, graceful, forceful delivery! "But what of it?" asks the man who opposes and even despises instruction in the art of speaking. "Is this not the day of journalism? It is thinking and understanding the written thought that is the achievement of the hour." To one of his bias of mind, impression and expression of thought by means of voice is only fantastic and useless. From his point of view, instruction in oral expression will result only in superficiality. True, this is a reading age. More people read than ever before, but this fact is no argument against the value of public speaking. There are many who do not read but who will listen; and the intelligent reader also is eager to hear good delivery. When a great speaker is announced, people crowd the place to the doors to hear him. Gifted actors hold men of all conditions spellbound throughout long presentations of Shakespeare. There are ministers so great that the doors close upon the waiting people. Why is this? The speech of the orator can be read next morning in a penny paper. You can buy a copy of Hamlet for five cents. The sermon may be printed in full for you to read.

It is self-evident that those who read, and those who do not, desire the fuller revelation of thought and feeling by the voice, and it is evident that they are influenced by that interpretation. Why is it that ministers deplore poor attendance at church when their sermons can be printed next day (?) and sold for a penny or given away? They know the power of delivery to impress a thought upon the mind and soul, so when the pews are empty they know their influence is reduced to a minimum. And though theological seminaries and colleges are sending out men sound in philosophy and ethics, they are sending them out deficient in delivery; and on Sunday the churches are empty and crowds find enjoyment in the toot of the automobile horn, and the promenade on the public streets.

Let us consider further but one practical example of the benefit of studying the art of vocal expression—its efficacy at the bar. Arthur Train, formerly assistant district attorney in New York county, in attendance upon the Camorra trial in Viterbo, Italy, commenting upon the lawyers employed upon the trial writes, "As for the lawyers, the advocate, they seem much like any group of American civil lawyers, distinctly superior to the practitioners in our criminal courts. It is when the advocate rises to address the court that the distinction between him and his American brother becomes obvious, for the Italian is an expert speaker, trained in diction, enunciation and delivery; and rarely in our own country, save on the stage or in the pulpit, will one hear such uniform fluency and eloquence. Nor is the speech of the advocate less convincing for its excellence, for the young men put a fire and a zeal into what they say that compels attention." Writing of Cavalieri Santaro, one of the most learned and eloquent orators in Italy, he says: "To hear him argue a point in his crisp clean cut melodious voice is to realize how far superior Italian public speaking is to the kind of oratory prevalent in

our courts, national legislature, and on most public occasions throughout the United States."

Is oratory at the bar only for entertainment and the self-aggrandizement of the speaker? Is a lawyer more honest, beecause with mental attainments equal to his oratorical brother he expresses his thoughts in poor elocution? This is the testimony of a practical man of affairs of the efficiency of excellent oral expression: "He has had his training in the great metropolis where every word must tell for power. It ought to be convincing."

It may be concluded from the foregoing examples that excellent oral expression is a component part of that culture deemed necessary for efficiency in social, business or professional life. Therefore, if there is a place in the world for the culture resulting from instruction in oral expression, there must be a place for it in the high school whence depart yearly, into all these departments of life immediately or through the colleges, hundreds of young men and women whose instruction in this important art should not be neglected.

Accepting its place in the high school we must consider certain situations. In discussing the subject from this point, educational value and method will be discussed correlatively, and method will be suggested rather than closely defined. A situation that confronts us is the diffidence of the pupil. When a pupil enters the high school it is with a growing self consciousness which increases as he grows older. The unconsciousness of his babv years is gone. Gone is the abandon, even the eagerness, with which he used to recite his "little piece" or read an exercise. Instead, is a fear of ridicule and self-depreciation resulting from a forming of values. He is uncertain. He dreads that he may fall short of standards. The first task is to set him free from this bondage, so his first instruction in oral expression should give him the confident and unconscious use of his voice. To do this requires time and skill.

Every high school should have a teacher of elocution. If time cannot be taken for classes to have daily work, it would be sufficent if classes would go to the elocution teacher once or twice a week—for vocal culture which includes breathing articulation, enunciation, quality of tone, placing of voice and modulation. These drills would give that freedom desired, and if teachers in all other classes would exact from pupils in oral recitations the excellence required by the special teacher, much of the hindering diffidence would be dispelled, and there would be better recitations in mathematics, science and English. If these classes are not too large, the drills may be followed with practice in reading, with special attention to inflection and emphasis for the purpose of expressing simply logical meaning. But if the classes are large, from thirty to forty pupils, while that number can be drilled in any of the vocal lessons, it is much better to have groups of only eight or ten for reading, and to meet them but once a week, than to meet them five times a week in a large class. Like the lessons on voice, this instruction must not confine its results to the class room of the elocution teacher. Wherever the pupil has occasion to read, or recite orally, the teacher of that class should insist upon the excellency demanded by the special teacher.

As the study of the æsthetical and the ethical cultivate the taste and control the emotions, it is most desirable that these classes be taught expression of the emotions. At this age boys and girls are keenly alive to the artistic in expression. If you do not believe it in regard to vocal expression, observe them flock to the theater, and stay away from church. The voice from the other side of the foot-lights finds an echo in their poet hearts; and for fear that voice may awaken a false note the teacher's care must be to attune souls to the truest music, so that only the truest notes will find an echo.

"But," you may object, "all this is taught in their study of literature." I concede everything to that study that it deserves and it deserves much. In his study of literature the student is studying rhetorical structure, diction, figures of speech, meaning of lines, of units, of wholes—literary style. The resultant good is that the memory is strengthened, the reason developed and the taste cultivated. But this knowledge is chiefly objective, and the educational value of oral expression is that it is subjective and endows the mind with power to create. We have such high authority as Tennyson and Van Dyke that the true beauty of poetry cannot be comprehended unless the lines are read aloud. For instance, in the idyl "Gareth and Lynette" the pupil may be taught to understand the meaning of every word and sentence of the first stanza, but he will not know the soul of Gareth until he hears him voice his noble discontent at his idleness, his chafing at his mother's control mixed with tender relentings at the thought of her love, and hears him cry out his heart's desire to break from his caged life and serve his king and his God.

The mental exercise necessary to comprehend a thought gives a basis for expression, informs the mind. To create expression of the lines of which one has acquired a knowledge he must go deeper than mere mental appreciation. The imagination must vivify the scene, reflection must bring the mind in sympathy with character, pondering must deepen the solemnity of some great passion, or the brightness of something gay and humorous. Then is the consciousness ripened, and when the student reads aloud, he releases the spirit hidden in the silent words. The process just described is subjective, for the pupil's power to interpret comes from within.

The vocal expression, in turn, stimulates the mind to still greater activity; for, when his tones begin to reflect the spirit within him, just as you sit under the witchery of a voice in a theater interpreting Shakespeare and thereby find revealed to you unknown thought or beauty, even in a familiar thing, or have your conceptions confirmed, so he listens to the voice of another. His impressions are deepened, new understandings are awakened, and oral expression becomes a means, not to hide lack of knowledge, but to detect lapses. The benefit of this kind of instruction will be

more enduring if teachers of literature follow special lessons in expression when they require oral reading. Instead of having pupils read, and then explain, it appears more psychological to have them explain and then read. Proof of this opinion is the criticism that pupils often read fluently but without understanding what they are reading.

In literature classes, if the pupil understands that he is to read aloud, he will apply himself more closely to the thought, and he should not be allowed to read unless he first makes himself clear. Committing lines that have been studied for recitation in literature is beneficial to the memory and reasoning powers. Sometimes a class needs assistance by hearing a reading by the teacher. The class in elocution that has given study to the lines needs the reading for suggestion. The class in literature needs the reading to clarify the thought, as but little time can be spent upon study for expression. I know of a class in literature that was unable to understand the phraseology of Tennyson in the "Idylls of the King." The class was reading Gareth and Lynette. The teacher gave tasks of word study as preparation, then read the allotted lesson, stopping to explain or ask questions whenever it seemed positively necessary, but not enough to retard the story. The lesson which had begun as a bore became a delight, and the written review which followed showed intelligent comprehension of the meaning and moral intent of the poem. The next lesson was Launcelot and Elaine. This time preparation was followed by the pupils reading aloud. They were not disturbed by having to arise, but read one after the other continuously so the unity would not be broken. It was a pleasure to watch those absorbed young faces, and to hear their voices naturally attune themselves to the musical rhythm and sentiment of the lines.

It should be borne in mind that this assistance should lessen in frequency according as more time can be spent upon personal development. Persisted in without subjective study it would result in imitation. To him who objects to a teacher reading to his class, we can say that for a pupil *never* to hear good reading would be as foolish as for an artist never to see good pictures, or a music student never to hear good music. If students are to have the assistance of good reading in literature classes, the literature teachers should be good readers.

Combined with class work in this grade of expression there should be special individual work. Then the pupil freed from embarrassment, alone with the teacher, ventures more originality. The teacher can give attention to the peculiarities of one mind and by asking questions, conversing with the pupils, awaken sometimes a dormant mind to a surprising activity. If I were compelled to choose between five lessons in oral expression of individual instruction and fifteen lessons in a class of thrity or forty of forty minutes each, I would choose the former. I have already asserted that good results may be accomplished with large classes in phonics.

But whatever the methods, the pupil needs the stimulus of incentive to acquire for himself the greatest good. This incentive may be to satisfy himself, to win a word of praise from his teacher, or to gain the approbation of his classmates, but the stimulus that spurs to the greatest effort is to appear upon the public platform, where he speaks to the assembled school. The difficulty of selection arises here, for the teacher chooses a classic and the student, anxious to entertain, often selects something inferior. The judgment of the teacher must be ultimate, although he must take into consideration the pupil's interest, and select that which both suits his own standard and satisfies the pupil.

The value of this work is that it is subjective. Imitation, except to help over a hard place that the mind is not capable of reaching, is stultifying to individual effort. The concentration necessary to produce a declamation before an audience develops the power to comprehend; the vocal practice necessary improves the delivery. Besides, through the criticism and praise from his fellows and teachers, he acquires judgment. Without much being said he knows whether he has pleased his audience or not. His efforts at debate either in a society or in public contest with a rival society, his taking a part in some classic play, if taught subjectively, combined with voice training, will tend to make him a thoughtful, correct, artistic speaker. Many teachers, after listening to these efforts by young boys and girls and finding much to criticize, condemn the whole thing as useless. They must remember that the high school is only a preparatory school, *no* class produces finished work with every pupil. Perfection must be left to more advanced schools. The elocution teacher knows that back of the apparent failure is an awakened consciousness, a new appreciation of value.

A word regarding text-books. A book upon phonics is all that is perhaps necessary. For reading exercises their other text-books are sufficient. Reading from the arithmetic, science-book, history, are good and practical for exercises to get the logical meaning. The newspapers, magazine articles and short stories are good supplements and are good for individual tests. For advanced reading every high school has abundant material in the books listed for school purposes, covering several classics.

If we agree to the foregoing needs and methods it must be admitted that when a pupil leaves the high school he should be able to read narration, exposition, description, and argument in a manner to reveal the logical meaning; and, allowing for the differences in talent, he should be able to give sympathetic expression to sentiment and passion. But none of this, or very little, can be accomplished if teachers are not given time. The special teacher in elocution should have no other work. The energy required to teach this subject, especially to give individual instruction to one hundred and fifty pupils a year in the platform work, to prepare for entertainments, holiday programs, to do occasional work for the literary societies, does not leave much nerve-strength to sit up until twelve o'clock examining papers of four or five classes in English of thirty or forty pupils each.

If the student enters life immediately, in society, in mercantile business or in any of the professions, the results of this culture will be manifest in the tone of voice in conversation and the courtesy of his address; in his seeking and selecting entertainment in lecture hall and theater. In his public speaking whether in the occasional address or in compliance with his profession at the bar, from the lecture platform or in the legislature, there will be evidence of this culture, for he has been taught that to express well he must think well; to write well, he must think, study, ponder; to speak well he must think, study, ponder. He will have contracted a sincere habit of mind, a cultivated taste, a sure judgment. Reflection necessary to produce true vocal expression has taught him true values, the value of his thoughts, value of the thoughts of others, and how much expression they are worth. Then, if by means of college training, he is preparing himself for the high and influential places open only to the best educated, his high school preparation in oral expression will fit him for the work in elocution and oratory which he should have in college. The movement in New York to make oral expression a requirement for college entrance is good.

There is beginning a revival of appreciation of good delivery. The people have always had a liking for it, and an appreciation according to their knowledge. They have taken what they could get, endured the worst, applauded the excellent when they found it, although deceived sometimes by false show. It is only educators who have been stupid. The contempt with which some teachers regard this art, and their complacent satisfaction with things as they are, reminds me of the turkey in Rostand's remarkable play, "Chantecler." When the pigeon is rhapsodizing over Chantecler's beautiful song, the turkey who cannot appreciate Chantecler's song, but who wishes the credit for Chantecler's greatness, struts with vain pride, and remarks, "Yes, I know this chick, for to me he is always a chick. He used to come to me for his bugle lesson." "You—can—teach—?" hesitates the unbelieving put polite pigeon. "Of course," responds the turkey, "a fowl who can gobble is surely qualified to teaching crowing." What flocks of turkeys have we known in the pedagogical farm-yard!

When Europe recognizes the power and influence of Herr Van Kiderlen—Watcher of Germany—the conversational genius of world politics, whose personality was so strongly felt in the opening of the war in Tripoli, when Europe recognizes the enchantment of his smile and speaking countenance, the charm of his manners, the spell of his voice—it is about time that we who sit at home rocking the educational cradle begin to value the importance of this art.

I have a vision of great things to be done for the good of mammon and the spirit in the next twenty years. If oral expression be correctly taught at the end of that time we shall have agreeable, fluent, courteous address in society. The collaboration of the study and the writing of English as we have it, with correct utterance as we shall have it, will produce more Madame de Stael's and a renewal of the French salon. Among men this culture will revive the elegance of the old cavalier with a sincerer character. Among these I see the teacher no longer standing on apologetic foot in the anteroom of society, but able to express confidently that which his mind is able to produce. I see him taking a dignified standing in a college faculty, his art recognized as educating among educators—for the new era will produce better teachers of elocution. Sermons winged with eloquent delivery, will speed straight to the inner temple of the soul instead of shunting off the penthouse of the mind. In the court, in congress, on the lecture platform, in political meetings we shall have Websters again, for the power to speak will create a desire to compose. We shall hear oratory, for the people trained to appreciate the best, and to detect tricks of speech and juggling with noise, will tolerate nothing but the best in composition—and delivery. And as we dream these dreams and know that the youth before us resting his confidence in our judgment is the one to realize these dreams, let us remember that a caged bird is a piteous object, and release the singing bird from his heart.

Miss Mary Whitson, of Philadelphia: I was much pleased with one of the very first points made in the paper. We have in the past paid more attention to the cure than to the prevention of defective oral expression. You cannot have correct methods of oral expression in the high school unless these habits have been formed early in the grades. The little child must be trained in oral expression in the primary school. He must be encouraged to talk about something he knows, to tell some of his own experiences. He will then pass the point of self-consciousness without knowing it. Having aroused his interest you will get a natural method of oral expression. Understanding must precede oral expression. A pupil cannot express what he does not understand. If you must omit either the reading or the understanding, by all means omit the reading. Help the pupil to grasp the meaning to make it his own. If you do this, he will give it force and correct expression. Another important point is that pupils must hear good reading, not too much of it, but enough to fix their ideas and ideals, although not with the idea of imitating it. Lead the child to see what a paragraph or story means and he will give it; not forcibly perhaps for immature minds cannot grasp meanings as do those more mature; but if it appeals to his emotions, if he looks with joy or sorrow upon it, if it expresses his own personality, he will be able to give it oral expression in a manner that will be both pleasing and enlightening. The secret of success in teaching oral expression is our ability to get the child to make his own thought to be expressed.

Dr. Eugene Baker, Philadelphia: We find it very difficult to secure teachers of English who have the power of expression. It is perhaps the most common weakness among our teachers of English. The colleges are

largely to blame for this condition. In the attempt to cover too large a field, they neglect to give the teacher the fundamental training even in the matter of reading well. To my great dismay in coming into contact with many graduates of the New England schools I found them versed in every phase of English, but they could not read. We need to emphasize more and more that our teachers of English be good readers. In the stress and strain of doing so much, we fail to give our pupils the practice in this most important phase of English teaching Each large high school should have a special teacher of oral expression, but that is not sufficient, we must insist on good reading in every class. We shall find that it pays many times over to do this.

Prof. W. D. Sheldon, of Girard College: Not only our teachers of English but every teacher should be skilled in vocal expression. Few teachers at the present time are qualified to read well. How often we hear teachers reading in a high key and in a complaining tone that is enough to set on edge the nerves of any sensitive child. The solution to this question must come back to the preparation of all teachers. We must begin in the primary grades to train for oral expression. The high school cannot overcome habits of early training. Few public speakers manage the voice properly and this is becoming more noticeable every year—and America has fewer great orators today than ever before. The tendency today is toward a business-like mode of public expression. The flowers of speech are being laid aside—but some essential elements of oral expression are absolutely neglected. One of these is distinctness. Even Phillips Brooks, great preacher that he was, did not speak distinctly. Upon one occasion when listening to him I lost fully half of all he said, because of his rapidity of speech and indistinct enunciation. What was the secret of the ability of Edward Everett to hold the attention of an audience for two hours or more, or of Wendell Phillips to sway vast audiences, or of Edmund Burke to make men think as he thought? It was not alone their learning, or their logic, but it was largelv their mastery of oral expression—guided by careful cultivation and extensive practice in solitude as well as on the platform. William J. Bryan is the only orator of the present day who is comparable with these men in this respect. I have heard him in vast auditoriums where every person could hear and understand all he said. In order to cultivate oral expression among pupils the teacher should have the power of expressive reading and should do much reading of fine literature. In this way he can do much to arouse the interest of pupils, and secure from them intelligent effort in mastering the subject of oral expression.

Principal J. P. Breidinger, Wilkes-Barre: This training should be subjective, not objective, not imitation but understanding. College men will not agree that the trouble is in the colleges—but the fact remains that even the ordinary study of elocution in college does not give a very strong training in oral expression. Hours of work are necessary to secure the proper expression from a classic, while ordinarily the hours are spent in dissecting the poem. More attention should be given this important subject all along the line from primary school to college.

TUESDAY EVENING.

THE Department was called to order by President Welles in the Auditorium of the Boys' High School at 8 p. m. He announced the appointment of the following committees:

On Resolutions—J. P. Breidinger, Wilkes-Barre; J. G. Smedley, Chester; A. D. Eisenhauer, Norristown; Ben. G. Graham, Pittsburgh, and W. D. Lewis, Philadelphia.

On Nominations—W. L. Smith, Pittsburgh; J. S. Hosterman, Montrose; G. D. Robb, Altoona; Chas. W. Hobbs, Ardmore, and W. S. Steele, Harrisburg.

Auditing Committee—E. M. Balsbaugh, Lebanon; J. F. Bower, McKeesport, and A. E. Buck, Catasaqua.

Principal J. L. Eisenberg, of Roversford, then presented the following paper on "The High School Teacher as a Specialist: What should be the Preparation, and by whom should it be done?"

HIGH SCHOOL TEACHER AS A SPECIALIST.

In the early days of the high school, just as in the early days of the common schools, no one thought that it was necessary to have special preparation of teachers. The work of the teacher could be done by any one who had the elements of knowledge and the ability to control the pupils. Horace Mann saw very clearly that special training was necessary for the efficient teacher of the common schools. In our own day we are just coming to realize the need of specialization on the part of the high school teacher.

The fact that there are high schools of various sizes needs to be considered when we discuss the high school teacher as a Specialist. It is evident, of course, that the greater specialization is possible in the larger high school. For convenience in this discussion we shall consider the high school of sufficient size to require at least one teacher for each of the following departments, Science, English, History, Languages, Mathematics and the Commercial Department. A high school of at least this size is considered because it is practically impossible for a teacher to be a specialist who is required to teach mathematics, languages, science, English, etc. Division of labor, specialization and the demand for efficient work in the business world, when applied to the high school demands that the high school teacher be a specialist.

Without further argument for the need of specialization on the part of high school teachers let us consider first, "What should be the preparation?" and second, "By whom should it be done?"

What should be the preparation? First, Academic preparation, that is, specialization in the subject-matter of the branch to be taught. This should consist of at least four years of high school work and four years of college work. The college work should have been planned by a group system giving special emphasis to the subject which the student is preparing to teach.

Not only should the student pursue all the courses bearing directly upon the subject to be taught but also the related courses. The prospective teacher of History should pursue the related courses of Sociology and Philosophy. In addition to this they should be studied with the definite idea of preparation to teach them. This means that the choice of profession should be made before entering college. Indeed, it seems to me that one of the chief functions of the high school is to help the high school boy to find himself. The student with the determination fixed that he is going to enter the profession of teaching will pursue the college courses in a different way from the student who takes the college course for the sake of general culture. The prospective teacher will need all the general culture, but more than that he will need the facts at his immediate command and the most efficient method of imparting them.

In the second place, the preparation should consist of special preparation after leaving college for the presentation of a given subject. Those of us who have been teaching know that we learn much more about a given subject in teaching than we do in the study of it, or rather we learn it in a different way. It should be the aim to gain all of the facts bearing directlv or indirectly upon the particular subject to be taught. This knowledge should be so broad that the teacher will be able to make a wise selection of the particular facts of the subject taught so that, while giving a logical presentation of the subject taught, he will prepare the student for life in the most efficient and economical way. To do this the teacher will soon learn that special preparation is necessary each time the subject is to be presented.

This suggests that the specialist should find himself making academic preparation to present the most recent information upon the subject. In other words the high school teacher should be up to date. A real live presentation of subject-matter will be the result. The teacher of science will readily realize the truth of this statement. By catching this point the dead teacher of the dead languages will discover a "moving of bones" and signs of a new life in his department.

The reference work is the fourth way in which special preparation should be made. So often references are given from the logical point of view rather than from the point of view of the individual. By requesting the working up of references largely technical and beyond the comprehension of the child, real interest is often destroyed. This is a calamity to any student. The high school specialist should realize the importance of recasting his list of references so that they will be adapted to the ability of his students.

Instruction in the use of reference works is invaluable for the high school students. How many of us who are engaged in teaching in high schools to-day received careful instruction in the use of reference works? Did we not simply learn to use them by using? We ought to realize that it would be so much better for the student to have some direction for the using of the reference works. This is no small part of the work of the high school teacher.

We, perhaps, all will agree that English is one of the most perplexing departments of high school work. For some reason the influence of the home, of the street, and of the social gatherings, all of which so frequently demand the use of poor English, cannot readily be overcome in the high school. For this reason there needs to be special co-operation on the part of our high school teachers with the English teacher. Some one has said, "English cannot be taught but must be caught." Our high school teacher needs to be a specialist to the extent, at least, of using good English and of being able to correct the improper form. If all the teachers of the schools will constantly insist upon the use of good English in both written and oral work, the habit of using good language will become fixed in the adolescent mind. We cannot put our pen to the paper or even open our mouths without giving expression to our training in this direction. Let English be the backbone of the course, both in the common schools and in the high school, and let the teacher of English receive the co-operation of all the teachers.

In the second place, professional training should be a part of the preparation of the high school specialist. The lawyer, the doctor, the clergyman, the business man, all receive their special professional training, why not the high school teacher? This professional training should be of such a nature that he who pursues it will become most efficient in the instruction which he is called upon to give.

There are five phases of professional work in which our high school teacher should be a specialist: Education, including the History and Philosophy of Education, General Psychology, Child Study with special reference to adolescent period, Educational Method and Educational Practice.

For want of time I shall omit a discussion of the first, Education including the History and Philosophy of Education, and pass to the discussion of the second phase of the professional training, General Psychology. There is much in Psychology as taught to-day that is not practical in the professional training of the teachers. This is especially true in Experimental Psychology. The general principles of Psychology are invaluable, however, for the teacher. This is generally termed Educational Psychology. In this we would include a general knowledge of the structure and laws of the central nervous system, apperception, suggestion, the doctrine of interest and the psychology of work.

The third phase of professional training is so much discussed in our day that I shall

pass it with simply calling attention to one phase of Child Study, namely, the adolescent period. No teacher has the ability to stand before the high school boys and girls without a fair knowledge of this period of "storm and stress." It is the period of the most unexpected change in the individual. Within a night, yea, almost the "twinkling of an eye" the nature seems to change. The dull phlegmatic boy of to-day becomes the bright and alert boy of to-morrow, and vice versa.

This is the time when the teacher's greatest sympathy is needed. Perhaps there is no better explanation than in the words of the following prayer: "Give me this day sufficient sense and sympathy to realize that what appears to me easy, logical sequence, only because I am a specialist in that branch, may seem absolutely meaningless jargon to an adolescent. Make me to feel that one taste of victory over high-school subject-matter is worth a hundred defeats, yea, that victory and hope and continuance in school are adolescent synonyms, and that a general's fame is not built on the defeat of his troops. Teach me to be less wise in my own conceit, and give me the social grace to realize that if I am to travel in the golden clime of adolescence, I must at least learn the language of that country and avoid what may seem to its inhabitants a barbaric tongue. Bestow on me the saving grace of humor sufficient to keep me from over-stressing any point and from becoming shrill. Grant me also the capacity to be as easily bored as the children of that rapidly-changing land of springtime. And, finally, enable me every day to look through the eyes of adolescence at a new world bathed in a light that never was on land or sea. Amen."

In the words of another, "Every high school teacher should be grounded in rigorous scientific method as a part of his indispensable professional preparation." Method for the high school teacher will mean the careful working over of the subject-matter from the pupil's point of view. Many pupils leave school because they are unable to grasp the subject. It is our place to present the subject to them in such a manner that they can grasp it.

Knowledge of a subject does not guarantee ability to teach it. There is a spirit in many college professors which finds its reflection all too readily in the student body, that to know a subject is sufficient guarantee of the ability to teach it. Years of agitation and education will be necessary to convince people that method is an important part of every high school teacher's equipment. We must remember that we are not teaching merely science and mathematics but boys and girls, and that our method must be founded upon the knowledge of these same boys and girls.

The last phase of professional education that I shall mention is Practice Teaching. All will agree, I think, that practice teaching is a desirable part of a teacher's equipment, both elementary and secondary. It should be practice teaching, not merely for a period of forty-five minutes per day, but for a period of two weeks or a month at least, in which the entire responsibility for the branch or branches taught will be placed upon the shoulders of the practice teacher. Many of the mistakes made by the beginning teacher could be easily and quickly corrected by a competent and careful supervisor. This phase of the teacher's equipment cannot be too greatly emphasized. The difficulties that are presented to this part of the practical training are chiefly administrative. Some one is needed to attack the problem and work it out to its practical solution. May I suggest that this solution will probably be found in the close relation of training school with some public school system or systems.

Social education is the third kind of preparation needed for a high school specialist. There is danger of a man or woman intensely interested in study of becoming a mere bookworm and neglecting that larger field of knowing life. Life in all its complex relationships, with its motives and ideals, presents a field for careful study on the part of the high school teacher. It is his duty to know the way men do things, to know the motives that move them in order to be able to prepare the adolescent for life's stern duties. This knowledge of life will modify both what we teach and how we teach it.

Again, this social preparation means a knowledge of the demands that will be made upon the young man or woman who leaves the high school to enter the larger field of actual life. We are accused of sending from our high schools helpless creatures. Why is it? Because we have taught them books only; because we as teachers knew books only. The demands that will be made upon them should be made a careful study so that the teacher may be able to prepare, at least in some small degree, the student to meet the responsibilities of life.

How can this be done? My answer is that the teacher can get this preparation best by mingling with life, with his eyes and ears open to catch every suggestion that may come from this personal contact.

By whom should it be done? The discussion of this second phase of the subject must be brief. The preparation must be made by the individual who is to become the specialist. It must be a personal matter. His specific aim should be to become a specialist in the teaching of his chosen subject. No more teaching for a year or two in order to earn a little money to enter some other profession which may offer larger financial rewards. Now it is specific preparation for a specific work in education.

From another point of view, by whom should it be done? The answer comes that it should be done by the state. Just as the state has made some preparation to educate elementary school teachers through its normal school system so somewhere, somehow, in some way the state should make provision for the preparation of high school teachers with the specific object of becoming specialists in their work. The state should do this first because of itself, for the sake of its

citizenship. It is cheaper to build school houses than to maintain jails and certainly better for the individual and for the community.

Secondly, the state should provide this special preparation because of the inadequacy of the salaries of the teachers. Two young men of eighteen are entering upon life's duties. One wishes to be a farmer, the other a high school teacher. In a recent edition of a rural paper there was an advertisement for a young man, offering $25 per month with board and washing, with the privilege of using a horse whenever desired. This means $300 per year less cost of clothing and incidentals, or $1200 in four years. The other young man wishes to become a High School Teacher. He must go to college. At the very best he can do it will cost him $1000 to graduate from college. Assume that he will be able to secure a position in a high school at $75 a month, for ten months or $750 per year. He must live for twelve months in a year. He will do well if he can secure room and board including washing for $6 per week, or $312 per year. Deducting the cost of his board from his salary of $750 we have $438 per year. Let us assume that his clothing will cost him $38 more than his farmer friend. This will leave $400 in excess of board and washing, the earning power of the teacher, as opposed to $300 in excess of board and washing as the earning power of the farmer, or $100 is the earning power of the teacher in excess of the farmer. At this rate it will take him twenty-two years to be in as good financial condition as the farmer. The prospects for improvement are equally as good with the farmer as with the teacher. This being the case, our high school teacher must be a vicarious sacrifice, that is, a sacrifice for the good of the cause under the present salary conditions. It is a strong argument for state preparation of young men and young women to become High School Specialists.

In conclusion, we may have had all the special preparation that our special schools can give, but unless the high school teacher has a vision of the possibilities of the adolescent, unless he has good personal habits, unless he is clean in character and of a strong personality his work will be a failure.

Prof. C. D. Koch, High School Inspector, followed in a paper upon

WHAT TRAINING SHOULD THE HIGH SCHOOL TEACHERS RECEIVE FROM COLLEGE?

In recent years a keen interest has been awakened in the preparation of high school teachers. The rapid growth in the number of high schools throughout the country and the consequent increase of teachers needed in this type of schools is sufficient cause to make inquiry into the training of our high school teachers and the kind of training they are receiving from the colleges upon which public school men must largely depend for their supply. In the year 1910, according to the sworn reports filed in the Department of Public Instruction at Harrisburg, there were, in round numbers, two thousand three hundred persons teaching in the public high schools of Pennsylvania outside of Philadelphia. Of this number more than twelve hundred are college graduates. Inasmuch as more than half of our high school teachers are furnished by the colleges we have a right to inquire into the training which these graduates are receiving from the colleges, whether they be in our own State or in other Commonwealths.

That the training is not satisfactory is shown by the attitude of superintendents and principals who frequently hesitate to recommend these graduates for high school positions until they have had experience. They claim these persons are not familiar with high school conditions. The second indictment comes from the graduates themselves who have recently taken up teaching. In conversation with a number of college students who have been teaching, I learned that, while some colleges offer courses that are valuable for the future high school teacher, very few pay any attention to the work of public high schools. The professors seem to be hostile toward anything academic; their courses seem to be adapted to the preparation of pupils for some university or for business. The deficiencies herein cited are by no means exaggerated as I have, during the last four years, personally inspected the work of two hundred college graduates who have recently gone into teaching, and am prepared to say that the criticisms of the superintendents and graduates are quite fairly stated. This position is further strengthened and supported by the expressed opinions of several high school inspectors in other states.

The third controlling factor bearing on this discussion is the result of a careful study of a thousand applications for the State Teachers' Permanent Certificate. This as you know is granted to college graduates who have taught three years in this State. The certificates furnished by the applicants were issued from 1900 to 1908, covering a period of nine years. These certificates came from one hundred and six leading colleges located in twenty-two states, in Canada and in Germany. Of the thousand persons, two hundred and fifty-two were educated in other states, thus giving Pennsylvania three fourths of the entire number. That the colleges included in this paper possess to a remarkable degree a similarity in courses of study, length of time given to each subject, the choice of electives and the privilege of graduating in less than four full years, is not at all surprising.

An examination of the college credits in these certificates shows that the majority of students pursue subjects for a period entirely too short to secure a mastery that will guarantee success in teaching them; that the relatively short time devoted to subjects leads only to a general treatment; and that the subjects frequently taken have very little bearing on the work of the high school teacher. This applies especially to English, foreign languages, the sciences and the professional branches. The average time given to English in college is somewhere near two hundred and fifty hours. The courses usually pursued are along lines of literary criticism, a study of a

manual of literary history, Trench on words, the evolution of the drama, all good in a way, but of little value to the teacher of English in the average high school. As a rule, very little instruction is given in composition.

The average time Latin is pursued is a little more than a year, counting five hours a week. By this, I mean, the Latin usually read in colleges. It should be noted here that according to college credits, a great many read all, or a large portion, of their preparatory Latin in college receiving credit for it. Greek receives about a year and a half. Very frequently the Greek is begun in college. Modern languages offer the greatest surprise when one thinks of the proficiency needed to teach them. Nearly half of those taking German in college pursue it for a year or less, while more than half of those taking French pursue this branch for less than a year. Many take them only for a period of twelve to fourteen weeks. This seems all the more striking when it is known that in the majority of cases German and French are not begun till the students enter college. The cause of the many failures to teach these languages, and the final repudiation of their value in the high school curricula, is not far to seek.

Perhaps, the study of the thousand papers may not be a safe criterion to follow in regard to the time devoted to the sciences in college, but it gives us the basis to form a fair judgment concerning the science work of those who are engaged in teaching. The study shows that the sciences are very much "squeezed," and one is likely to infer that they are of doubtful value. It may surprise you a little to know that more than four hundred persons out of the thousand took chemistry in college for less than a year and half of these took it for a period of twelve to fourteen weeks, but to grant such persons a life license to teach chemistry with such meager preparation should, at least, set us to thinking.

About half of the students who elected physics took it for less than one hundred hours, which, it will be generally agreed, is all too short to get hold of the subject-matter and the experiments required to make the teaching of this branch effective. Botany and zoology are passed with even more scanty treatment than either physics or chemistry. These branches are seldom pursued for a period longer than a term of twelve weeks; now and then a half-year, and not infrequently eighteen to twenty-four hours, in the form of lectures. That only fifty-five students pursued courses in biology should be considered unfortunate for the teaching profession because this study is so rich in the fundamental things, an understanding of which is quite necessary to grasp the full significance of the phrase, "Education as adjustment."

There remain for consideration the studies thought to be related to the profession of teaching, such as ethics, logic and sociology; and those studies which form the bulwark of the true teacher, psychology, history of education and pedagogy. Of these studies ethics and logic were studied by more than two-thirds of the applicants, while the number taking sociology is less than one hundred and fifty. It is interesting to note that the average time given to each of these three subjects is less than fifty hours. In many cases the time given consists of eighteen to thirty-six hours in lectures. As for psychology and the history of education it may be stated that psychology is found to be very generally studied in college, as nearly nine hundred out of the thousand persons took courses in this subject though the average time given to it is only sixty hours. History of education and pedagogy appear so seldom, and only in a very general form, that it is difficult to determine their relative worth.

From the facts in the foregoing discussion it is very evident that the time usually given to subjects in college is quite insufficient to obtain the kind of mastery needed to teach them in the High School; that, in the second place, the length of time professional studies are pursued is so short that their value in benefitting high school teachers is very much minimized. A careful examination into the subjects that appear on the application blanks for teachers' licenses makes the need of a standard painfully apparent. There would be in all probability some difference of opinion as to what would be a reasonable standard for Pennsylvania High School Teachers. Fortunately, we have for a partial guide, the very complete statement of the Committee of Seventeen on the Professional Preparation of High School Teachers, printed in the N. E. A. proceedings for 1907. It recommends:

First; That the academic preparation include the following elements. A detailed and specialized study of the subjects to be taught. One or more subjects from a group including history, economics and sociology, which will give the teacher a proper outlook upon the social aspects of education. A course in general psychology and at least one from a group of subjects, including history of philosophy, logic and ethics, which will give the teacher a proper outlook upon the education as the development of the individual.

Second; That definite study be given to each of the following subjects, either in separate courses or in such combinations as convenience or necessity demands.

A. 1st. History of general education.
   2nd. History of secondary education.
B. Educational psychology with emphasis on adolescence.
C. The principles of education including the study of educational aims, values and processes.
D. Special methods in the secondary school subjects that the students expect to teach.
E. Organization and management of schools and school systems.
F. School hygiene.

Third; That opportunity for observation and practice teaching with secondary pupils be given.

Fourth; That the minimum requirement for a secondary school teacher be graduation from a college maintaining a four-year course and requiring four years high school work for admission or from an institution having equivalent academic scholarship.

Fifth; That the study of subjects mentioned under the second recommendation be distributed through the last two years of the college course.

I shall pass over the first recommendation which deals with their academic preparation and proceed to the second because it is pertinent to the subject under discussion. This insists upon definite study being required along professional lines. First of these is the history of education. Of the thousand college graduates already referred to only sixty took courses in the history of education, while only four studied the history of secondary education. Additional facts are not needed to show that the applicants have not attempted to meet the recommendations of the committee. Educational psychology with emphasis on adolescence is recommended, yet less than five per cent. of those who take up teaching receive serious instruction in this important branch. Would it be fair to assume that young teachers frequently fail because they do not sufficiently understand how to deal with pupils of high school age? It is generally agreed by educators that a definite study of the principles of education would be valuable to every high school teacher, yet one rarely finds this study in the curriculum of the average college. Right here is where many of our high school teachers, who come from the colleges show a great weakness. There is too much aimless teaching because these teachers possess no definite knowledge of the principles of education.

Special methods of instructions in the secondary school subjects that the students expect to teach are very desirable in order that no time will be lost in adapting the particular subject to general and specific purposes of education. Such a study should give the teacher the power to judge the relative worth of subject-matter and the skill needed to present topics in accordance with general principles of methods. English courses setting forth the composition work adapted to the different grades of high school pupils, the study of appropriate classics for the several years in the high school, and the methods of teaching the classics would be found very valuable to the college graduate about to begin teaching in the high school. These young persons should also be acquainted with the best books on English of high school grade in order to avoid the loss of a year or two in making the required adjustment.

What has been said of English applies with equal force to foreign languages. Each person preparing to teach German or French should pursue courses for at least four hundred hours, two hundred of which, should be required in college. In addition to this each student expecting to teach German or French should know the best practice dealing with modern language teaching, as to aims and methods, conversation and translation, oral and written composition, aids to teaching a language and how to recognize the good points in selecting grammars and appropriate texts.

The leading exponents on the amount of Latin required to insure the thorough mastery needed to teach it, demand four years of Latin in the high school or its equivalent and the required Latin of a college giving at least two years of the language. There can be little doubt in proclaiming this a fair standard, yet the facts show we are far short of obtaining them. I am of the opinion that the ineffective Latin teaching, due in the main to a lack of full knowledge of the subject has been the chief cause of the strong criticism against retaining it in the high school. *If Latin is nearly dead, may it not be because teachers are killing it?* A more comprehensive knowledge of Latin, living methods of teaching it, well-selected texts and reference books, genuine sympathy with the pupils of high school age in respect to the difficulties they have in learning a foreign language, will be sure to bring better results and greatly remove the hostility to this subject.

It is highly imperative that students should be given opportunities to observe instruction in secondary schools where they may see the definite and concrete demonstration found in educational theories. This is entirely feasible, and there seems to be no good reason why colleges should not make an effort to bring this about by co-operation with the public high schools. With such an arangement each would be a great help to the other. Practice teaching with secondary school pupils is very desirable, but under present conditions is difficult to obtain, although a few colleges have effective plans in operation.

It will not be amiss to pause long enough at this point to suggest that the so-called professional subjects, like psychology and history of education should be offered in the Department of Education. The special methods in other lines should be taken up in teachers' courses by the heads of the several departments. I am not unaware, however, that the attitude of many college professors towards methods and theoretical studies of education is directly opposed to what is advocated in this paper, but if they can be shown that a knowledge of these subjects will increase their prestige, then our schools will receive the benefit of valuable training and the efficiency of our teaching force will be increased many fold.

In order to reinforce the points in this discussion, I wish to re-state what seem to be basal principles in training high school teachers.

First: Prospective high school teachers should be graduates of reputable colleges.

Secondly: The subjects they expect to teach should be pursued for a period considerably longer than the records show. A minimum requirement expressed in hours should be fixed for each subject together with a full statement from the head of the department setting forth the degree of proficiency obtained in each.

Thirdly: All student teachers should show by examination, or otherwise, that they possess a fair knowledge of the following branches: history of education, secondary school problems; educational psychology, with emphasis on adolescence; principles of education, special methods in the subjects they expect to teach, and school management. They should also have opportunities to observe instruction with high school pupils.

Fourthly: Without strict adherence to the above standards we cannot hope very soon to have the work of teaching receive the recognition to which it is entitled and to have it placed on a par with other dignified professions. It is quite obvious that steps should be taken by some recognized body to fix standards that will more adequately determine the fitness of persons to teach in the high schools. Is it our move?

The following is a list of the hundred and six colleges on whose degrees the thousand permanent certificates were granted and their distribution among the several institutions.

Allegheny,	63.	Alfred Univ.,	2.
Amherst,	2.	Albright,	8.
Bates,	1.	Bethany,	3.
Beaver,	3.	Buchtel	3.
Bryn Mawr,	2.	Brown Univ.,	2.
Bucknell,	68.	Campbell,	1.
Cornell,	14.	Carleton,	1.
Central Penna.,	9.	Caldwell, Ky.,	1.
Colgate,	2.	Chicago Univ.,	2.
Columbia Univ.,	2.	Dartmouth,	1.
Denison,	2.	Dickinson,	36.
Delaware,	1.	Drury,	1.
Elmira,	2.	Eastern Virginia,	1.
Findlay,	1.	Franklin and Marshall,	42.
Franklin, Ind.,	4.	Grove City	195.
Geneva,	10.	Gettysburg,	33.
Grant University,	1.	Harvard Univ.,	2.
Hamilton,	2.	Hanover, Ind.,	1.
Hiram,	2.	Heidelburg,	1.
Haverford,	2.	Holy Cross,	1.
Illinois Wesleyan,	1.	Irving, Female,	20.
Juniata,	6.	Kee Mar,	3.
Lafayette,	24.	Lebanon Valley,	26.
Lake Erie,	1.	Lehigh Univ.,	7.
Lenox,	1.	Lincoln,	1.
Mt. Union, Ohio,	12.	Muhlenberg,	32.
Muskingum,	3.	Mount Holyoke,	3.
Mount St. Marys,	1.	Oberlin,	14.
Otterbein,	3.	Ohio Wesleyan,	8.
Ohio University,	2.	Park, Mo.,	1.
Penna. State,	11.	Univ. of Penna.,	10.
Princeton,	9.	Penna. College for Women,	4.
Pittsburg, Female,	1.	Roanoke,	1.
Rochester Univ.,	2.	Smith,	2.
Susquehanna,	18.	Swarthmore,	4.
Syracuse,	9.	St. Josephs,	1.
St. Francis Xavier,	1.	St. Stephens,	2.
St. Vincent,	1.	St. Lawrence University,	1.
St. Thomas,	1.	South Dakota Agr. Col.,	1.
Tarkes, Mo.,	1.	Thiel,	12.
Taylor, Ind.,	1.	Teachers' Col.,	1.
Tufts,	2.	Univ. Wooster,	5.
Univ. Missouri,	1.	Univ. Pittsburgh,	5.
Ursinus,	21.	Univ. Tübingen,	1.
Univ. Wisconsin,	1.	Univ. Michigan,	2.
Vassar,	6.	Va. Poletechnic,	1.
West Va. Univ.,	4.	Wellesley,	6.
Waynesburg,	24.	Wittenberg, O.,	4.
Wells,	3.	Westminister,	43.
Washington and Jefferson,	22.	Wilson,	31.
Wilberforce,	1.	Western Maryland,	1.
Womans,	5.	The Western,	5.
Yale,	3.		

In reply to the query suggested by Inspector Koch, Prof. George H. Hallett told what the University of Pennsylvania is doing for the training of high school teachers, as follows:

WHAT ARE THE COLLEGES DOING FOR THE TRAINING OF HIGH SCHOOL TEACHERS?

There are two distinct methods open to one in presenting the subject, "What are the Colleges doing for the training of High School Teachers." The first consists in giving a general statement of the attitude of the college in reference to this training, in explaining the intent of the courses given and in emphasizing the importance of these courses. The second is to examine as carefully as the time (fifteen minutes) permits, the content of the courses actually given and to call explicit attention to the function of these courses. I have adopted the second method for the two reasons that the subject-matter has to deal directly with the facts of the case and that the emphasis can be placed where it belongs, and that is on the actual work.

At the outset it is well worth while to notice that any critical estimate of the effectiveness of college work must be based at the present time on much broader considerations than was the case a few years ago. There was a time within the memory of many of those here present when questions of material equipment were regarded as being of minor importance. This view was due in part to the older methods of instruction; for example, when physics, chemistry, psychology, and biology were taught through lectures and recitations from text-books, there was small need for our modern college and university laboratories and their large libraries of reference.

The recognition and consequent appreciation of correct scientific method have been of gradual growth and have resulted in the necessity for large and larger equipments. Moreover, the plan of instruction has so changed that it is now a well-recognized fact that the thoroughness of the work done in certain subjects varies directly with the laboratory and other material facilities offered in those subjects. An important item, therefore, in the presentation of what a college or university is doing for the training of high school teachers, is a definite statement of its material equipment and its facilities for undertaking this training. While having, therefore, of necessity a due regard for questions of material equipment in the discussion of this subject it should not be forgotten that after all is said, it remains a fact, as it always must, that the teacher is the prime factor in all instruction.

Twenty years ago the University of Pennsylvania instituted a number of special courses intended primarily for teachers. These courses were attended from their inception by a constantly increasing number of men and women who were engaged in secondary school teaching. In order to meet the demands made upon it the University from time to time in-

creased the number and scope of these courses. And it should be stated here and definitely placed on record that from the beginning the members of the University Faculty took an active personal interest in this work. The success of these courses led, in 1906, to the formation of "The College Courses for Teachers." In these courses the teacher has the opportunity of pursuing the same work that is given in the School of Arts and Sciences and has the added opportunity of taking many courses which are designed especially for teachers and which make the discussion of methods of presentation a leading feature of the work.

The University of Pennsylvania believes that general culture and academic knowledge are the first essentials for the high school teacher, and all of its courses are planned and all of its instruction is based on this proposition. The special and detailed knowledge of a particular subject which a teacher of that subject must necessarily possess, is provided for by elective courses in the several subjects. These courses are for the specialist and aim, in part, at the development of technical skill. The professional knowledge necessary for the teacher is developed in courses devoted to special methods and these courses are regularly given by the several departments of instruction to which such courses belong. It is with these latter courses that the present paper is concerned. Only a few of them can be mentioned, the selection being to a great extent arbitrary, but the plan and scope of those cited remain the same throughout the different subjects. The subjects are treated topically:

Psychology.—It is of interest to note that the oldest laboratory of Psychology in the United States is that of the University of Pennsylvania and the first Chair of Psychology ever established at any institution in the world is that at the same University. The teaching of psychology at the University of Pennsylvania has certain original and characteristic features and is based on the assumptions, that those who enter upon the profession of teaching must be possessed of a scientific knowledge of the factors involved in the development of the human mind, that this is the only way in which education is to become a great profession; and that psychology is not merely a matter of text-book and blackboard but a question of the individual pupil. Full and systematic courses as well as special courses on particular phases of the teacher's work are regularly given. These are classified under three heads: Practical Courses, the Systematic Course, and Advanced Courses.

The aim is to provide the right kind of instruction for teachers in normal and high schools and for those who desire to become psychological experts for the public and the special training schools. Special reference should be made to the psychological clinic or laboratory of applied psychology wherein the teacher may obtain an extended experience in the study of backward children. And it is a significant fact that children from all parts of the United States are brought to this clinic and that its sphere of influence and useful service is now extending beyond the boundaries of our own country. That the importance of this work in psychology is appreciated by the teachers themselves is sufficiently attested by the fact that at times more than fifty persons engaged in actual teaching are pursuing a single course.

Pedagogy.—The courses in this subject are arranged to give the knowledge of general pedagogy which is recognized as being indispensable for the teacher. In the graduate school, the educational seminary and the course for educational research furnish opportunities for the specialist to carry on his original investigations and a wider view of certain problems is obtained through the medium of class discussions.

Mathematics.—In the department of Mathematics a course devoted entirely to the pedagogy of Elementary and Secondary Mathematics has been given for a number of years. This course in connection with a second on the History of Mathematics is designed to give the high school teacher a firm grasp of the professional side of his work and seeks to develop in a systematic manner the real utility and function of mathematical teaching in the schools. A limit is established beyond which it is not considered advisable for the secondary school to advance, and emphasis is given to the view that mathematical rigor, in the University sense of the word, has but small place in the high schools; that intuition and imagination should play an important part in secondary mathematical instruction, and that the cultural value of mathematical instruction is high when given by a sympathetic and patient teacher who has a mastery of his subject.

English.—Of significance is a series of courses designed to help the teacher in coordinating grammar or language studies and composition work. The structural side of grammar rather than the merely analytic is emphasized, and it is shown that grammar is not a dictator but a servant to rhetoric, and that grammar is a matter of logic and not of rote. In these courses contemporary literature is drawn upon for anything and all things that will show English in the process of carrying living thought into living expression. For this purpose only thoroughly contemporary literature serves, not even the English of fifty years ago is or should be used as a model in composition work. The need of our time is the need of a language as varied and as flexible as the interests of the moment. In all those matters that deal with clearness, force and, even to a degree, ease, it is the constant practice to show that in any given instance of their achievement they are not matters of accident but of clearly discoverable design.

Sociology.—The fundamental idea developed in the courses in sociology is that the social side of the teacher's work is quite as valuable as the pedagogical or psychological, and that it is becoming more and more vital for the teacher to have a knowledge of and an appre-

ciation of the more important social problems of the day. The real work of the schools is the training for citizenship and to this work the teacher must bring a knowledge of the science of human society. The race problem, which is inseparable from that of immigration, requires a scientific treatment of facts as such a treatment must necessarily precede any really valuable discussion of this problem. The courses on the Race problem, therefore, are considered of great importance for the secondary school teacher. A course on the social problems of the school-room has for its direct object the discussion of class conditions, and from its very nature calls attention to many facts which heretofore too often have been overlooked by the teacher. The Summer School of the University of Pennsylvania offers exceptional opportunities to the high school teacher, and the work of this school as a whole is primarily arranged to meet the needs of the teacher.

All the courses which have been mentioned and outlines of which have been given are open to the teacher at the summer session as well as throughout the academic year. The work is intensive and as much is given in the six weeks of the summer school as is taken in the College Courses for Teachers in a single term. In the summer school the departments of Pedagogy, Psychology, and Sociology have special lecturers who present the results of the most recent investigations in special lines of research. For example, one year ago a course of daily lectures on vocational training was given in which such training for commerce and industry through apprenticeship, part time schools, evening schools, shop schools, social welfare work and unorganized instruction was discussed. The historical basis and the present trend were set forth, and a plan of procedure in industrial education was considered.

In this brief summary of the work of certain departments of the University of Pennsylvania, particular mention has been made of those courses which are arranged and planned primarily for the teacher. Emphasis should be placed on the fact that the great teacher, whatever be his subject, has developed a method of his own and that his success is due in a large degree to methods of presentation which are peculiarly his own. The students by coming into daily personal contact with such a man are furnished with valuable examples for use in their own subsequent teaching. It is sometimes assumed that the professional and special method side of the teacher's training is not sufficiently emphasized by the larger institutions. In reference to those universities which are maintaining and developing what may be termed "Teachers' Colleges," this assumption is surely unwarranted.

In conclusion, it may be stated and it will be recognized immediately by all who have attended any institution of learning that many things which are of inestimable value to the teacher in his life work are not to be found in any review of courses taken or of subjects studied. The ideals of a large university which are a sacred heritage from the past—the living touch with those who are perpetuating those ideals—the spirit of the seeker after truth for no other reason than it is truth—these things and the like are of no secondary importance in the training of the teacher.

AT THE UNIVERSITY OF PITTSBURGH.

For the University of Pittsburgh, Prof. Charles B. Robinson responded as follows:

The colleges and universities are beginning to assume their responsibilities in the matter of training teachers for secondary schools. We assume that they all believe it to be desirable, or at least it is policy, because a large percentage of these institutions have established some form of training for prospective and active teachers, and these courses can usually be had as a part of the regular college course. That this has become a fact is an evidence that we are moving educationally. That the nature, quality, quantity, and general efficiency of the work done in the different institutions would have a wide variation, is to be expected. In the matter under discussion the variation is even greater than in other departments. This is not all due to differences inherent in these institutions, but much of it is due to the laws of the several states.

The state requirements in the preparation of teachers differ very much, and there does not seem to be any common ground, except the trend toward higher requirements, with California leading in this. Pennsylvania requirements are a little better than the general average for all the states, but we cannot be proud of our associations in most cases. It seems as if the requirements should touch more closely the work that these teachers are preparing to do; for instance, the required psychology should be that of the adolescent; the school management and methods should be for that of the secondary schools; practice should be required, and provision made for practice. Many institutions plan to give to their students the courses that meet the bare requirements of the law in regard to certificates, but our colleges and universities have another and larger duty; they should be the leaders in all the movements for greater efficiency of the teacher through his larger preparation, and in anything that will promote the progress of education in general, and in the local community in particular. A few of the ways in which Departments and Schools of Education may and often do serve, are:

1. To give good training in the theory, practice, and professional spirit, to those expecting to teach.

2. To give courses, where possible, that will prepare teachers for special work, such as administrators, supervisors, and specialists, for such work as playgrounds, kindergartens, retardation, acceleration, home work, school nursing, and the many forms of activity now required by our complex school life.

3. The teacher in service needs special care, and particularly under a system granting permanent certificates, because those school systems are doomed always to carry a load of

"dead and unburied" teachers. There should be a constant effort made to stimulate the teacher in service, to keep growing by always doing something along the line of their profession, and to this end promotion should be made upon such a basis and not by the clock. Evening classes, Saturday classes, summer-terms, extension courses, and non-resident work are a few of the things that can be made available for these teachers.

4. The results of investigations and experiments in all lines of human interest should be collected, interpreted, and if there is any educational value in them, they should be placed before teachers, school officers, patrons and the public.

5. These departments and schools should conduct and direct investigations upon subjects having probable educational value; there is wide opportunity and large obligation here; that is, these institutions should use the communities and the communities should use the institutions in helping solve the numerous problems in administration, child psychology, and experimental pedagogy.

6. These institutions should promote, arrange and conduct conferences upon all subjects of vital interest in education; they should be the "clearing-house" in all educational matter for the community.

7. These institutions should be mediating, harmonizing and socializing agencies in the community.

The report of the N. E. A. committee of seventeen on the "Professional Preparation of High School Teachers" is very full and complete, and gives us the best thought to date on the subject; because the committee so well represented every phase of the problem, theory, practice and administration. We will not discuss their suggestions for the academic preparation of high school teachers; it is good and we are advancing toward their standard. The Committee's recommendations for the professional work are good. That the suggestions for the work in theory is a fair measure of the best practice in our colleges and universities, shows us the trend in this subject. There is chance for disagreement on the subject, but in the large those school men who have to do with the high school teachers on the practical side of the problem will view with favor the Committee's point of view. The recommendation, "That opportunity for observation and practice-teaching with secondary pupils be given," is farther from being satisfactorily administered by the colleges and universities than any other suggestion that this Committee made. It is not because we are any longer called upon to justify this kind of training, nor do we need to enumerate its advantages, because the dictum "Learn by doing" is fully believed to-day; and that does not mean, watch someone else and learn to do. We did not learn to swim by reading a book on the subject, nor by sitting on the bank of a stream and watching the others swim; we watched how the big fellows acted, and experimented a little, and watched again, and one day some one pushed us into the deep water, and we thought that it was swim or be an angel; so we swam and have continued to swim, and to swim better and better, because we watched others and had our critics.

We learn by observing, trying; observing, trying; and observing and trying until we have learned: there are no "short cuts," but the way may be made smoother. The Committee of Seventeen named three plans for practice teaching that have been tried with varying degrees of success: 1. The maintenance of a school of secondary grade to be used for observation and practice. 2. The use of public or private high schools so situated that they are accessible. 3. The use of schools more remotely situated, for cadet teaching, when competent supervision can be had. In such cases the diploma of the teacher is given after a year of successful service as a cadet.

As shown by Farrington the training work in most schools of collegiate grade is nil. It is interesting to note the movement in many quarters looking toward a solution of the problem. In at least Wisconsin, Illinois, Minnesota and Texas, the legislatures have recently made liberal appropriations for the establishment of schools of secondary grade for experimental and practice purposes of teachers in training for secondary schools.

We will now take up the professional training of teachers for secondary schools as planned and administered by the School of Education of the University of Pittsburgh. The University of Pittsburgh requires for its bachelor's degree one hundred and ninety-two credits, including six credits for physical training. There must be taken in the course at least twenty-seven units in one subject, and eighteen units in another. A *credit* is one hour of work per week for one term; three terms to the year; a fourth term may be had during the summer. In the course for secondary teachers the academic work comprises at least three-fourths of the credits, the professional one-fourth. During the freshman and sophomore years practically all of the required work is the same as that taken by the students in the college, and this work is taken in the college. During the junior and senior years the amount of work taken in the college diminishes and the amount in the School of Education increases. In credits this work is equal for the last two years, but the climax of the professional work comes during the senior year. Educational theory takes up one-fourth of the student's time during these years. This may seem to be a large proportion, but it is believed that the subjects taken are equal to any others in the course in their *cultural* and *liberalizing value*, and to the teacher they have a *practical value* in addition.

The following subjects, with the credits given, are required: principles of education, 4 credits; psychology of education, 4 credits; child study, 4 credits; school economy, 4 credits; history of education, 6 credits; supervision, 2 credits; either elementary or secondary education, 4 credits. The electives that may be had are numerous. The School of

Education offers in all nearly forty different courses. The electives in education are such as history of education; experimental pedagogy; psychology and pedagogy of study; educational sociology; school hygiene; and secondary school problems. These may be substituted for the minor academic electives in the senior years.

The major subject of the student is continued through the junior and senior years. In the junior year the minor subject should be related to the major subject, or should be of such a nature as will combine with it in an effective teaching group. In the senior year the historical and educational aspects of the major subject are given, and the special pedagogy of the subject is worked out in the practice teaching and made to function as far as possible with the student's other work. The minor subject in the senior year should be in a different field from that of the junior year. Occasionally the time given to the minor in this year is given to several subjects. The aim of the student is considered.

The selections and changes in all courses in the School of Education are made in consultation with the Dean of that school. The special feature of the professional work is the observation and practice, which begins in the junior year, and this work receives one-fourth of the credits of the junior and senior years. In the junior year the students are apprenticed to near-by secondary schools where they serve as assistants to selected teachers of the subject that forms the student's major subject. The apprentices assist daily in all the duties of the school and class-room, except to give actual class instruction at the beginning. They coach backward children, keep records, make out reports, criticize written work, prepare blackboard work, conduct written lessons, assemble and set up apparatus and illustrative material, act as laboratory assistants, look after the ventilation, heat and light of the class-room, in fact they do anything that belongs to class-room management. This work gives the student confidence and class-room freedom by making him familiar with the details of administration and class routine, and will enable him to do these necessary things when he gets to teaching with little effort; while with most young teachers they are made too much of and injure the work of higher importance.

The work is also made an excellent practical course in child study. The observers go to their work each week with definite problems in mind that have been given to them, and they make regular reports upon the work that they observe. A supervisor from the School of Education follows the work that is being done in observation. The student's reports, the student's experiences, the head-teacher's criticisms and the supervisor's observations, form the material from which the student builds or interprets his theory for subsequent practice, and it gives him an experience basis that enables him to understand and appreciate in a closer way the work that is being done in his courses in education. Conferences of all the observers are held weekly by the supervisor in charge of that work. This work in observation, including everything, is intended to occupy about three hours of each school day for one or two terms, depending upon the aptitude and rate of development of the student.

When the work in observation is satisfactory, the student begins to do a small amount of teaching, not more than one period per day, under the close supervision of the head-teacher. This teaching is preferably in the field of the major subject of the student, but it may be in his minor. The student prepares carefully the lessons to be taught; the teaching and general results of the lessons are discussed and constructive criticism is given by the supervisor for further work. The student in his earlier experiences has learned the routine of class mechanics and now gradually develops his teaching skill by his careful, intensive preparation and presentation of his daily lesson, which is presented under almost constant supervision.

The practice work for the senior year takes the form of the instruction, discipline and complete management of a grade, class or school, from two or three periods each day through the year. At least one-half of the teaching must be in relation to the major subject of the student. This work is done in the public and private secondary schools that are accessible to the University by trolley or train.

The apprentice is assigned to the various schools on application. The needs of the school, the preparation and ability of the students available, are the determining factors in making the appointment. These apprentices are subject to the principal or local school authorities during their period of service, and co-operate in every way as a member of the regular teaching force of the school; they use the devices and apparatus of the school and follow the local customs and precedents in the administration of the work, where these in any way can affect the organization of the school. The apprentices report for their work even when the University is on vacation, if the recess periods of the two schools do not coincide. The apprentices are subject to and expect the same guidance, supervision, criticism and regulation that the other teachers receive from the local school authorities. The head of the local school sends regular reports to the School of Education concerning the work that is being done by these apprentice teachers.

The School of Education provides for the regular inspection and supervision of these apprentice teachers; they are visited at least weekly, and, if necessary, oftener. These apprentice teachers report in weekly conference to the supervisor the work done during the week passed, giving their ideas of the results obtained, successes and failures; these are discussed and the work for the next week is planned. The reports of the student apprentice, the reports from the local school authority, and the inspections of the supervisor, check each other, and thus the School of Education is enabled to follow closely the

work that each apprentice is doing; checking, correcting, suggesting and helping them to acquire the power and habit of self-criticism, and finally to relate intimately theory and practice.

The School of Education aims to keep the theory that it teaches in close touch with practice; each should guide and measure the other. If theory is not demonstrated in practice, we get buoyant. Practice is the ballast that keeps us in equilibrium. The School of Education would be remiss to one of its important duties if it took into this work every one that thought he had a call to teach. We refuse to take or keep in these courses for secondary teachers, any individuals who for any sufficient reason seem to the faculty to have misunderstood their call.

The School of Education feels that the secondary schools have a responsibility in the matter of the training of teachers, and also that the State should properly recognize this obligation and aid in this work by making special appropriations to those secondary schools that will enter into co-operative relations with institutions that are preparing secondary school teachers; and it has been shown that the results of "practicing" upon the children are not detrimental to the children.

The School of Education believing it desirable to enter into close and cordial co-operation with the schools of the Pittsburgh district, proposed to these schools to furnish teachers or assistants to the schools of the community for short periods of time. These teachers being, without exception, members of the upper classes of the University who are rounding out their professional training with practical experience; they being supplied only to those schools and to those teachers whose standard and methods command the approval of the School of Education. The only conditions imposed on schools receiving the services of such teachers or assistants is that adequate supervision and criticism be furnished and reports of the work be made to the School of Education at stated times; and in the case of those students who become regular substitutes or apprentices, that the local schools pay the cost of transportation of the apprentice, it being usually ten cents per school day.

Three kinds of assistance are thus given the schools which desire to co-operate with us: 1. Substitute teachers to take charge of a school for a short time in the absence of the regular teacher. 2. Assistant teachers who become regular apprentices to the teacher in charge of the school, serving certain hours daily, attending to the routine affairs of the school and thus leaving the teacher free to devote herself intensively to the more important things. 3. Regular teachers who become responsible for the instruction in certain classes throughout the year, the program being so adjusted that the teachers can carry on the University work in connection with the teaching. There are certain manifest advantages in the operation of this plan, both to the public schools and to the School of Education.

To the School of Education the advantages are: 1. The opportunity to give practical experience to its graduates under natural conditions as they exist in the schools. 2. The opportunity to become familiar with the needs and problems of the schools of the community, and to keep theory and practice in close accord. 3. The opportunity to show to the public the quality of the work of its graduates. 4. The opportunity for direct, practical aid to the schools which need assistance.

To the schools of the community the advantages are even more numerous and more apparent: 1. Substitute teachers of superior qualifications may be secured in unexpected emergencies without delay. 2. *Overburdened teachers* may lighten their work by turning over the details of schoolroom management to one of our students as a regular assistant. 3. Teachers who are specially strong in one subject or department may be freed for supervision in that specialty by accepting the services of one of our teachers for a part of each day. 4. High schools with limited resources may, with but small increase of expense, increase the number of courses offered by placing certain classes in charge of our students who are specializing in the teaching of these subjects. 5. Principals may get more time for inspection and supervision by utilizing our proffered help. 6. Many of the problems of individual instruction, study hour supervision, etc., may be solved in the same way. 7. School officers will be able, in many cases, and indeed have discovered first-class teachers among our candidates whom they will desire to retain permanently in the schools. 8. In a more general way, the schools becoming associated with the School of Education in this way will be in a position to profit directly by whatever of value it may introduce. This, of course, will be a mutual benefit.

We make no pretense that this service is to be offered to the community without any sort of compensation. It is not a charity and is not thrust on unwilling, unresponsive or unappreciative schools. It is of great value to the schools, and the schools are expected to render some fair and just compensation in return. This compensation is not to be asked, ordinarily, in terms of money, but in terms of sympathetic co-operation and mutual service. Our mutual task is to furnish the best teachers possible to the community, that is, to the very schools which are asked to co-operate in their training. The School of Education expects, therefore, that the teacher it furnishes to the schools will meet a sympathetic reception, and will be given a fair share of supervision, kindly criticism, and such other help as they may need. These teachers will be as well trained in point of scholarship as a large majority of the teachers regularly in the service, and their professional qualifications will be quite superior to those of most of the new recruits in the profession. They do not detract in the least from the efficiency of the schools receiving them, if they receive the same supervision and help that should be accorded other new teachers; in fact these apprentice teachers are a stimulus to the

teachers in service. In cases at present, large classes have been divided, part of the class being given to the apprentice, the other part retained by the older teacher, and the apprentices do not suffer by a comparison of results, because of the careful preparation and the close supervision given. And when the schools realize their share of the responsibility for the development of good teachers for their own children, sympathetic and helpful criticism is not lacking.

We do not claim that this is a perfect scheme for solving the problem of furnishing practice teaching for secondary teachers in training, nor that we have it in as good running order as it will be when we have had more experience with the work. We are just now one-third of the way through our second year. It is in place to say that the plan has given general satisfaction wherever it has been tried. The best proof of its value is that schools that have once tried it ask for its continuance, and that the demand for apprentice teachers is larger than our supply.

WORK DONE AT LAFAYETTE COLLEGE.

Prof. W. B. Owen described the work done at Lafayette College in this paper:

The statement of my subject challenged me to a little research into the history of Lafayette College. In one of the earliest reports the authorities say, "As to elevating the standard of common school instruction, we propose to effect it by training teachers to that business as a profession." There is a small building on our campus—now the Registrar's office—which forty years ago was called "West College," and earlier had been called the "Model School." It was erected in 1837, and used for a number of years for the training of teachers. Prof. Robert Cunningham, an enthusiast on the subject of normal training, came from Edinburgh to take charge of the work, and was followed in it by Prof. David P. Yeomans.

In a report of the authorities in 1839, the Model School is spoken of as meeting a pressing need for better teachers in public schools. It complains however that no provision had yet been made by our state, for any "normal seminaries," maintaining that it was "highly desirable and entirely practicable to append such an institution to a College, and that, as there were ten colleges in the state, we might have as collegiate adjuncts ten normal seminaries." There was need of financial support in this work, and they close their report by saying, "We are of opinion that no appropriation of school funds would be so profitable to the people as that which would ensure to them well qualified teachers."

They offer a very suitable course of study, and for the year of which I am speaking (1839) have an enrollment of 34 normal students. The catalogue of '42–'43 shows an enrollment of 49; so that for some years this experiment was carried on, and I have heard it suggested that it was the germ of our state normal school system.

At present we have at Lafayette—as looking directly to teaching—one year of elective study, two periods a week throughout the senior year, in Psychology and the History of Education, a course, which, whatever its value may be for teachers, I should regard as an important part of a course of liberal training. Yet today Lafayette is sending out many teachers into college and high school work. Our Dean recently examined the record and tells me that an average of 32½ per cent. of our graduates for the period of the last twelve years, have entered the teaching profession. That includes both our general and our technical courses. And they are good teachers, holding standard and rising positions in superintendence, in principalship, or in responsible department work as teachers.

It seems to me better to make teachers of men who have had a rounded curriculum of general studies, with the training that goes with a liberal education. Doubtless it would be well if they could have a liberal training first and then supplement that with some technical study of the art of teaching, psychology, etc., as we do it at Lafayette, or better yet take a post-graduate year in the subject at the university.

While the college does not aim to finish men off for teaching, in all the technicalities of the art, any more than it technically trains them to be lawyers or ministers or doctors or journalists, nevertheless a man at his graduation finds himself in possession of a very good equipment for the kind of teaching that is needed in a high school.

He has a certain refinement of intelligence, and a maturer appreciation of the needs of pupils—from his own experience—and how these needs are best met by competent professors, in many cases teachers of known eminence, whose discipline is good, and who have fine methods of imparting knowledge.

We must maintain a high ideal of what the teacher should be. The pedagogue should have no human frailties! He should be conscientious, capable, with an expert knowledge of the subjects to be taught, and a goodly fund of knowledge besides, and with intelligent insight, so that he can see things not only, but see through them, through his pupils, and see their needs.

Here a difference arises. The pupil is almost sure not to realize the need which the teacher discovers in him. A tempting line of remark here invites, viz., the tendency in modern education to transfer the office of discovering needs from the teacher to the pupil—freedom in election of studies, the pupil deciding the matter on the basis of his likes. But what a boy likes is very often no guide to what he needs. Another difference between the teacher and the pupil, to which we must give some attention, grows out of their points of view in estimating educational values. From the pupil's point of view studies are valuable as they give knowledge; from the teacher's point of view, as they give power, building in here a little, checking there, giving a balance of power, which requires not that he know all things or many things, but that he know certain things very well—so well that the knowledge is a part of him.

The teacher has a hard pressure upon him right here because the pupil's point of view is strongly reinforced by popular opinion—that the work of the school is to impart knowledge; and so courses are being crammed—more subjects and more work required than can possibly be well done within the time. Our very examinations inculcate that idea, examinations that test knowledge and to some extent expression, but no test of health or habits, of temper, of patience, of consecutive thought, of feeling, of conscience, of character. The aim is not to get knowledge merely, but to work out such selected knowledge as we may master into capacity, and power and ideals of life.

We say knowledge is power, but it is not, unless under special conditions. When it comes to that point where it utilizes the forces of nature, and masters the conditions of supplying the needs of life, we may call it power; when in the processes of its handling there emerges some kind of capacity, then it is power; when it reaches that point where it can be transmuted into character, then it is power; but the mere knowledge of facts as a personal accomplishment is not power, and has in itself little value of any kind.

Now this passing of knowledge into something finer, by means of reflection, experience, the familiar handling of knowledge under circumstances such that it will yield up its best fruits,—this transmutation of mere knowledge into discernment, accuracy, judgment, prudence, wisdom—shrewdness, duplicity, knavery, etc.,—is what chiefly concerns us in education. We note differences here. To take a single contrast—wisdom, shrewdness. Wisdom—that lifts a man to larger outlook in life, ennobling his whole nature, qualifying him therefore to choose ends that may be pursued with safety and honor. Shrewdness—the keen edge of expediency to note advantages under given circumstances, with sharp outlook for the main chance, and that qualifies a man therefore to devise means to any end, however wisely or unwisely that end may have been chosen. Your shrewd man may pervert the good, and play tricks with conscience and motives; you can't trust him to apply your preachments of righteousness and mercy. He will apply every precept so as to place the duty on the other man and the benefit upon himself. Incidentally here, we may note the importance of having knowledge ripen toward wisdom rather than toward shrewdness. That is training of a higher kind.

All this to emphasize the office of the teacher. He must do the best that the best can do, and his success in the pursuit of studies with his classes will not be the result of some trick or turn of mere method, but rather the result of his having the instincts of a clear understanding, and refinement of intelligence on the intellectual side, and sincerity and force of character on the personal side.

That is a high ideal, but you will not think it visionary if you remember that every teacher of a high school who is a graduate of a good college has had opportunities of coming under unusual personal influences that lift men. I only hinted at it a moment ago in the sense that college students have such fine opportunities of becoming familiar with higher and often superior methods of teaching. They not only see how the professors do it, but they have a chance to see what these professors are, and to receive from them a valuable endowment of personal influence. Every college has its eminent teachers, those especially fitted to inspire men and help them to form ideals of life and work, and such inspiration has its most direct and immediate use and value in the work of teaching.

So, as in days past, in the times of Prof. Hadley and Prof. North, and Dr. Nott and Dr. Hopkins and Dr. Arnold, names familiarly mentioned in this connection, so now there are at our seats of learning many men of similar quality, devoting themselves with enthusiasm to the work of instruction or research, or both, not only giving eminent examples of method and management, but creating a most wholesome atmosphere of personal influence to mould the lives of young teachers. What we should always remember is, that in preparing young men and young women for this good work, *the* instructor is of more worth than *his* instruction.

AT THE PENNSYLVANIA STATE COLLEGE.

What the Pennsylvania State College is doing for the training of High School teachers was told by Prof. Erwin W. Runkle in the following paper:

The Pennsylvania State College is, as you know, one of fifty-two higher institutions of learning in the several States and Territories, founded and maintained by the joint action of the Congress of the United States and the Legislatures of the separate States. Its duties and opportunities are, therefore, plainly marked out by statute, viz: the main object being to provide a liberal and practical education for the Industrial Classes in the several pursuits and professions of life, not excluding other scientific and classical studies and including military tactics. The Commonwealth of Pennsylvania accepted this Congressional act of 1862, signed by President Lincoln; and in the following year pledged the faith of the State to carry the same into effect. This act of Congress gave 30,000 acres of public land for each Senator and Representative in Congress—the proceeds to constitute a permanent endowment fund, the States to provide buildings and adequate maintenance.

The Pennsylvania State College is, therefore, constituted by nation and state a people's college, the crown of the free public school system of the Commonwealth, the servant of all the people to the full extent of its resources. Its campus is not the 600 acres and 30 or more buildings in the Borough of State College, but the entire Commonwealth; and as these State Institutions are awakening to their responsibilities, and the States are adequately supporting their needs, the splendid history of Wisconsin, of Illinois, of Penn-

sylvania, of Missouri, of California, to mention only a few, will be repeated in every State.

The Pennsylvania State College is meeting its responsibilities and duties by first providing regular courses of instruction leading to a degree. The College maintains five schools: Agriculture, with eight district courses of instruction; Engineering, with eleven courses; Mines and Mining, with three courses; Natural Science, with six courses; Liberal Arts, with seven courses, and Home Economics, one course. Highway Engineering, Milling Engineering, Railway Mechanical Engineering, Architectural Engineering, Sanitary Engineering, Industrial Chemistry, Horticulture, Market Gardening, Dairy Husbandry, Animal Husbandry, Landscape Gardening; pre-legal and pre-medical courses, courses in Physics, Chemistry, Zoology, courses in Forestry, are some of the academic instruction courses followed by our 1,700 regular students.

The Agricultural Experiment Station, the Institute of Animal Nutrition, and the Engineering Experiment Station are engaged in research, publishing the results in bulletins sent freely to those interested in all parts of the State. Apprenticeship Schools in Engineering, Mining Lecture Courses and Demonstrations, are held in surrounding cities, and movable Agricultural Schools are in operation. Correspondence Courses are offered in the several schools. Good Roads and Agricultural trains have been run to all parts of the State, and Farmers' Week during the Christmas Holidays, and excursions during the Spring and Fall serve to connect the College with the experienced husbandman and industrial worker.

But I am to speak particularly of what the College is doing for the training of teachers. What I have said, I have deemed necessary as bringing to your mind the facilities and equipment which we offer the high school teacher preparing for effective specific work. I say then, first, that we are co-operating with you, doing with our resources, and in our way, what you are doing with yours.

Our specific work for teachers may be summarized, briefly, under three heads: 1, Special Courses of Instruction; 2, The Summer Session for Teachers, and Correspondence Work; 3, Educational Conferences at the College and elsewhere. First: Special training courses for teachers in high schools are organized in the several schools comprising The Pennsylvania State College. Each of these schools has exceptional equipment, the facilities in Agriculture, Engineering, and the Sciences are particularly noteworthy. To equip teachers in subjects most commonly found in high schools, the academic resources of the Schools of Liberal Arts and of Natural Science are utilized. The School of Natural Science offers a four years' teachers' course in the sciences, botany, zoology, physics and chemistry, with psychological and educational subjects, leading to a Provisional College Certificate. The School of Liberal Arts offers a specific course in Psychology and Education, including psychology, ethics, history and the principles of education, school organization and management, secondary education, practice teaching under supervision, etc. Other courses in the School of Liberal Arts lead to a Provisional College Certificate if the required number of hours of professional study is satisfactorily pursued.

To equip teachers and supervisors of manual training, the School of Engineering provides a four and a two years' course for teachers, including mechanical and free-hand drawing, wood work for elementary grades, wood turning, bent iron work, forging, foundry, art metal work, pattern making, furniture design and construction, organization and equipment for manual training, with sufficient hours in psychology and education to lead to a Provisional College Certificate.

Likewise the School of Agriculture, in addition to its academic courses, offers a teachers' course of one year in cereals, farm soils, practical pomology, principles of breeding, market gardening, farm dairying, etc. The academic courses specializing after the Freshman year in horticulture, dairying, agronomy, agricultural chemistry, animal husbandry, etc., make provision for electives so that the student proposing to teach may secure some training in the history and principles of education.

The Department of Home Economics, which has laboratories and lecture rooms in the Woman's Building, provides a course of four years and also a shorter course in cooking, millinery, dressmaking, basketry, metal work, chemistry of foods, etc.

The entrance conditions to all these four-year courses are the same as to regular academic courses—there is no lowering of standards. The teacher should demand as thorough-going preparation for his work, as complete professional recognition, and as adequate compensation as any of the professions. We believe as a cardinal educational principle, that the best preparation for any teaching is a mastery of the subject taught. As President Harper used to say, "Know your subject so thoroughly that your method will be your own individuality." Hence, these four-year courses are adapted for thorough and specific preparation.

However, many teachers cannot take the term time for additional training, and yet desire contact with new subjects, or old subjects taught with fuller equipment. To place the facilities of the college at the disposal of such, a Summer Session of State College for teachers was instituted.

In this we say what we mean, and mean what we say. First it is a Summer *Session* of the college, taught almost wholly by members of the regular staff, using all the equipment and laboratory facilities of the various lines of work. It is not a Summer School, with more or less bent to popular interests and methods, but a Summer Session of the college, with collegiate standards, teachers, methods and facilities.

In the second place, it is a Summer Session for *Teachers*. Here again we mean just what we say. Students making up work are not enrolled; even students of the College are not

permitted to register for credit in their College courses. By this plan, the teacher has every facility accorded to him. He finds a unity and community of interest in class work, and thus secures a maximum of benefit. We are, therefore, maintaining consciously and with malice aforethought a summer *session* for *teachers*. The college offers and renders available to *teachers only* what it maintains for the student during the two semesters of the Collegiate year. The Summer Session does not provide the fundamental instruction offered by the Normal Schools. Teachers would do well to have a Normal or High School course before entering. Any person holding a certificate to teach in the common schools, issued by the State of Pennsylvania, or any person engaged in teaching within the State, will be admitted to classes without examination and without tuition, except the payment of a small registration fee, which secures admission to all general lectures and entertainments and includes the use of the Libraries. Persons not holding certificates and not teaching in Pennsylvania must be at least 18 years of age, must declare their intention to teach, and must satisfy the Director of the Summer Session that they are qualified to enter the classes they propose.

Teachers satisfactorily completing courses are given certificates, and in case they satisfy the regular entrance conditions of the college, definite credits will be given counting toward a degree. The details of a plan have been worked out by which teachers of the Summer Session may continue their work by correspondence courses under definite conditions, rendering it possible for a teacher to combine the work of a period in residence, with consecutive summer sessions, and with correspondence study to obtain a degree at The Pennsylvania State College. Such Correspondence Courses are now offered in Education, English, French, German, Greek, Latin, Mathematics, Psychology and Spanish.

Graduates of other institutions of reputable standing may take part or all of the two hundred hours required by the School Code for a provisional college certificate. An arrangement has also been made that examinations for permanent state certificates may be taken in parts, so as to permit of work in the Summer Session preparing therefor.

The first session was held June 20 to July 29, 1910, and enrolled 147 teachers, from 36 counties of the state. Forty-five subjects were followed, and 132 received credit for work successfully completed. The second session enrolled 215 students, a gain of 46 per cent. Forty counties were represented as over against 36 of the preceding session. Four hundred and sixty-one credits were secured, as over against 337 in 1910. The subjects pursued were Agriculture, Botany, Chemistry, Domestic Science, Education and Psychology, History, Industrial Art, Languages, Mathematics, Music, Mechanical Drawing, Physics, Manual Training and Zoology.

Mention may be made, also, of the Summer School for Library Workers under the auspices of the Pennsylvania Free Library Commission, held at the College during the Summer Session, and the opportunity offered to teachers to pursue one course in the use of Libraries in Schools.

A third direction of work for teachers is represented by Educational Conferences at the College, and outside its walls. Three conferences of Superintendents and High School Principals have recently been held at the college at which problems of school and college were discussed. No set or formal papers are read, but informal, frank and free discussions of entrance conditions, how to secure better preparation, the means of bridging the student over from high school to the somewhat larger freedom of the college, greater or less flexibility in entrance requirements, the certificate system, industrial education, manual training, etc. Much interest has resulted in these conferences, and mutual good understandings engendered wherein there is no dictation from above, and no carping criticism from below.

This in brief is the plain story of what The Pennsylvania State College *is* actually doing for the teacher. What the college may do for the teacher as well—"that is another story," as Kipling says.

GERMANY AND AMERICA.

In the general discussion Prof. J. F. Brown, author of "The American High School," was called to the platform, and spoke much as follows:

I hope we may be able to realize the greatness of the message that has come to us through these addresses and papers to-night. Ofttimes our problems become clearer in the light of what others have done to meet similar problems, and I wish I could paint to you in five minutes time a picture of preparation for Secondary teaching in Germany. A hundred years ago Germany faced the problem that we are just beginning to realize, and set about to solve it. She requires that every secondary teacher shall be a graduate of a secondary school, and shall spend three years in a university specifically preparing himself for his life-work. He is then given a critical physical examination and, if considered fit, is allowed to appear before the State Examining Board. He is examined in German life and literature, philosophy, pedagogy, religion and three special subjects. Or he takes a severe special examination for the Doctor's degree. Having had a scholarly training, he is placed in the hands of a director for observation, practice teaching and study. The severity of this work is unknown to us in America. His class work is subject to the severest criticism. He is not yet ready to begin so important a life-work. He must spend one year in practice teaching under the supervision of an experienced teacher. Then at the age of 28 or 30 he is permitted to begin teaching, and once assigned he has his position for life. Germany believes it worth while thus to prepare its secondary teachers. Why should we not face the problem and set about its solution?

In America the one thing that is lacking in the preparation of secondary teachers is the opportunity to go into schools and do actual

practice work. It must come, however, and is, we believe, the next great step in this movement. Pittsburgh is now doing it, as we have heard this evening, in a very natural and effective way. And the message I would bring to you men is, "Make use of every opportunity to co-operate with colleges in bringing about this result." The State of Indiana has already enacted legislation making possible such work under proper prescribed conditions. And in each state the work must be regulated and standards adopted by a central authority.

WEDNESDAY MORNING.

THE session was opened at 10 o'clock with a violin solo, after which Miss Anne Jones, of the Technical High School, Scranton, read a paper on

DOMESTIC SCIENCE IN SECONDARY SCHOOLS.

By "Secondary" we mean high schools and schools between elementary and college or higher schools. According to one of the latest issues of the "Journal of Home Economics," Normal schools and Agricultural schools are also listed as secondary. The course of study in secondary schools depends largely upon the course given in the elementary schools, that is, where the elementary schools give courses in Domestic Science. Three years ago at the Lake Placid Conference on Home Economics, secondary school courses was one of the topics of discussion. The summary of the discussion is as follows:

1. The difference between elementary and secondary work in Domestic Science consists in method rather than in subject matter. Conditions vary so in different parts of the country that it is impossible to state definitely what the difference would be. In certain sections most pupils do not pass beyond even the elementary school, in others Domestic Science and Art are given only in the high school. It would follow therefore that certain subjects must be taught both in the elementary and the high school.

2. Practical work is necessary in the high school as well as in the elementary school. While hand work should be emphasized in the elementary school and the scientific and economic aspects developed in the high school, hand work cannot be omitted from the latter since only through hand work do the principles involved become vital to the pupil.

3. There should be a definitely, organized course in Domestic Science and Art in the high school. If it is taught incidentally in connection with the sciences no definite body of ideas can be organized in connection with the home and all the questions involved in its management.

A high school boy, who took work in cooking for a year, wrote his teacher afterwards, that the best thing he got from the work was an appreciation of his home. When he found how much time and thought went into the preparation of a single meal and that this was only a small part of the management of the household, he realized the time and effort that went into home making.

Someone has said the "Domestic science is the keystone in the arch of all the sciences." Dean Davenport, of the University of Illinois, in an address on the educational value of domestic science in the high school says, "Whatever the work of the grades the high school is the place to get a broad view of some of the problems of society." The factory rather than the home is calling the girl, and this makes necessary an effort to make the keeping of the house a respectable business. The idea that we are not to presume that the girl of the high school is to be a housekeeper is false. We have reached the place, where, if the teaching of domestic science is not successful, the law will require every girl to learn housework. Domestic science in the high school brings about a rational view of life. It makes better students. It gives a deeper meaning to other subjects. The home has ceased to be the industrial and social center and the school must take account of this fact.

Miss Snow, supervisor of arts in the Chicago public schools, thinks that much practice work should be done in cooking in the 7th and 8th grades, and then in the first year in the high school the student has something in mind to theorize about, that the cooking then should be to explain results and to gain facts. In speaking of the need of domestic science, which teaches to handle the sciences and not to say that bacteriology, for instance, is too hard to tackle, she remarks, "Surely these little organisms are not as difficult to manage as the high school girl and boy." In a recent written test on canning food one of my pupils informed me that dry moisture was much more fatal to bacteria than wet moisture. Miss Snow says, "The course of study should include chemistry for three years and physics the last year. Physiology should be taught the 1st and 4th years. We cannot get along without the sciences—cannot teach cleanliness without bacteriology, nutrition without physiology and chemistry; we cannot teach the effect of heat and the processes of cooking without physics and chemistry. Domestic science includes all of these. In the 4th year, the civic life, the great study of economics should be taught. The interests of the girl should be kept expanding and broadening from her freshman to her senior year." Prof. Fetter, of Cornell, says, that a part of our task is to arrive at sounder notions of the kind of family life than is possible and desirable in our new social functions. That beyond the chemistry of foods or the cost of gingham is the main task of household economics, and to reach the masses training of this kind must begin at least as early as the high school.

I believe the very first industrial training for girls in a public school was in the Toledo High School in 1884. In comparing some of the states as to the number of high schools giving courses in domestic science, we find that the West in this as in other educational ideas is far ahead of the East. Illinois comes first with sixty-six of these schools. Last year there were fifty-eight public high schools

teaching domestic science—a gain of sixteen over the previous year. Forty-three of these are teaching food, forty-one clothing, and twenty-five the home. More than half the counties are teaching domestic science or household arts to some extent. The state issues a very complete syllabus of domestic science and art that is used in all the high schools. Colorado comes next with fifty-nine, Minnesota is a close second to Colorado with fifty-three. Michigan has twenty-nine, one more than Massachusetts. Oklahoma has thirteen, one more than Pennsylvania. While Wisconsin and New York have the same number, nineteen. In Nebraska clubs for girls have been formed in connection with the high schools, although the outline issued by the department of public instruction is also adopted for grammer grades and for older girls in rural schools.

The plan of procedure for these clubs is rather unique, the practical work being done at home. Meetings of the club are held once or twice a week, usually after school. A certain recipe is taken for the work each week and each member tries it at home; at the next meeting results are compared and discussed. A president and secretary are elected to look after the executive work and keep records carefully. A teacher in the school who is interested in the work and in the girls, is the advisor of the club. In this way a definite course of study is carried out during the year. The number of these clubs has so increased and there is such a demand for a course of lessons that the bulletin is issued specially to meet their needs.

The Kansas State Agricultural College, in connection with its extension department, conducts a series of "movable schools of domestic science." These are similar to the travelling schools in Germany. They are for the benefit of high school students. The schools are equipped by the college and conducted for a period of one week at a place. Last year schools were conducted in more than a dozen cities and towns.

Fifteen per cent. of the high schools throughout the state have nominal domestic science departments. There is excellent work done in Kansas City, Topeka, Leavenworth, Iola, Parsons, Emporia, Wichita and a number of county high schools. One thing that has given an impetus to the work has been the appropriation by this year's legislature of $250 from the state fund to be paid annually to any high school which gives the one year normal course and has a course in agriculture, for the purpose of helping to pay the salary of an additional teacher in domestic science.

In Texas last year the state established the work in all the normal schools. In Houston the work has grown in the past three years from a two-years' cooking course in the high school to ten fully equipped centers in the white grammer schools and two in the negro schools. In the high school there is a four-years' diploma course in domestic science and arts. The work is compulsory in the grade schools and first year in high school. There are three normal schools, thirteen high schools and one Indian College.

California has forty secondary schools giving the work. San Francisco has two endowed schools where domestic science is taught to high school students, one is the School of Mechanical Arts, the other the Copsfell Polytechnical High Schools. Two new high schools are now in course of construction where domestic science will be part of the curriculum. One of the most interesting schools in California is in the little city of Hollywood. This school offers perhaps the most nearly ideal secondary education for girls obtainable anywhere in the United States at public expense. It is a striking example of what surely awaits us in the education of women. Hollywood is one of the richest surburbs of Los Angeles. Although it had a fully equipped modern high school, two years ago it was voted to bond the city of five thousand people for another hundred thousand dollars for the purpose of adding a department of manual training and a school of domestic science and art. Dr. Wm. H. Snyder, the principal, believes that domestic science, in the broad sense of the term, will prove an indispensable element in the physical salvation of our people. The building itself is beautiful and substantial and sets a worthy example for home-making in being flooded with sunlight, thoroughly ventilated and charmingly effective from the laundry below to the art museum above. All the apartments are simple, tasteful and genuine. There is a model flat on the second floor, most of the larger pieces of furniture were made by the boys themselves in the manual training department, while the girls themselves have made or supplied all the lighter furnishings and decorations. Among the innumerable uses of the flat is the opportunity it affords for a domestic science "thesis." This is a performance: On a Monday morning the seniors of the cooking class discover all the furnishings of the flat "stacked" in disorder on the floor of the living room. This means that they are to plan a new arrangement of furnishing and decorations, etc. When this is done (after several days) a model lunch is planned and served. This must be done without any help, the only limitation being the price. Twenty-five cents per person. To this lunch each girl invites a friend or parent. One member of the class acts as hostess. She is responsible for the conversation, etc., during the luncheon. There are several of these "theses" during the year and the students are marked by the teachers as to their artistic, domestic and social aspects. These schools have attracted superintendents all over the state and all the high school plants began in California last year, including one that is to cost $300,000, are being modeled after that of Hollywood.

In New York domestic science is limited in the high schools to cooking alone, as the classes are very large and the periods short. Home economics is given in nineteen high schools but so far the course of study has been experimental, as a large percentage of the children promoted from the elementary

schools have not had this subject, although in the elementary schools cooking, nursing and laundry work are given. In 1888 domestic science was introduced experimentally into the schools in New York City, and in but one borough, that of Manhattan. To-day it is taught in all the boroughs, and in 174 elementary schools. Besides the nineteen high schools it is taught in five evening high schools and thirty-five evening elementary schools. In a recent report the Director, Miss Williams, says, "This remarkable growth is due to its increase in popularity with the Board of Control and the public. But to gain this popularity has required patient, persistent effort on the part of the Director, and ability, devotion, self-sacrifice and enthusiasm on the part of the teacher. It has won approval on its merit as a moral factor in education."

In regard to its being a moral factor it may not be out of place here to repeat a favorite quotation of Miss Williams taken from a lecture of Sir Laudor Brunton, of London: "Some may think that, in speaking of cooking as a moral agent, I am greatly exaggerating its power. And they may regard it as idle folly if I go still further and say that cooking is not only a powerful moral agent in regard to individuals but may be of great service in regenerating a nation. Yet in saying this I believe that I am speaking quite within bounds, and I believe that schools of cooking for the wives of working men in this country will do more to abolish drinking habits than any number of teetotal associations. I do not at all mean to say that the vigorous efforts of teetotal societies have been altogether a failure, but I do not think that this plan will ever be crowned with complete success, and I believe there is a better way of obtaining their object."

One of the best arguments, if not the best, for domestic science in the elementary schools is that such a small percentage of these students enter high school—about forty per cent.—and, in cities where it is taught only in high schools, the great majority of these students receive no training whatever along these lines. This is to be greatly deplored when one considers that a great many of these pupils are the future mothers and home-makers. They are the ones who marry first and enter early in life into the work of caring for a home. When one considers their lack of preparation, their inexperience, and their ignorance concerning the first duties of a home-maker, is it any wonder that the papers are full of stories every day of wrecked homes and unhappy lives.

In some places where the board of education is unwilling or not yet ready for the work something has been accomplished by women's clubs and similar organizations. Several years ago the woman's club of Rutland, Vermont, offered to give the equipment for a cooking school kitchen and furnish the room for one year if the board of education would furnish a teacher and pay running expenses. The members of the board were not very enthusiastic but consented. The course was offered as an elective to members of the first year class in high school, and about fifty girls received instruction, two of the four classes met on Saturdays, the others on school days. At the end of the second year the board voted almost unanimously to continue domestic science as a part of the regular school work.

The girls "High School of Practical Arts," which was opened in Boston in 1907, has two kitchens equipped for household science, each one accommodating twenty-four pupils, so that each day one hundred and fifty girls cook and the food is sold to teachers and pupils at the lunch hour—the money thus obtained paying for the cost of material. Meals are also planned and prepared by the students and served to invited guests. Heating, ventilation, plumbing and sanitation are studied in connection with the work in science. A flat of six rooms is rented near the school for lessons in laundry work, cleaning and general care of the house. So that it will be readily seen that the name is not a misnomer, as every facility is given for work in the practical arts. This school also has an academic department, the course covering four years. During the first year the course is the same for all pupils. Six periods a week are given to serving, four to cooking and housekeeping, and ten to academic subjects. At the beginning of the second year the students elect either household science, dressmaking or millinery, and devote ten periods a week to it besides required work in the academic departments.

During recent years the growth of Domestic Science has been very rapid. Where it is impossible to start it in the elementary schools it is established in the high schools. The South is slowly falling in line. Georgia has eight high schools; West Virginia, Tennessee and North Carolina each six high and two and three normal; Virginia has five high and three normal; Maryland has four high; Kentucky and Louisiana each three high and one normal; Florida, Alabama and South Carolina each two high; while Alabama has four normal schools and South Carolina two in which instruction in Domestic Science is given. Just at present not any of the high schools in Baltimore have courses, but plans are now before the school board and they expect to start the work the first of next year. This instruction is given in the grade schools.

In Canada, manual training has passed from the experimental to the permanent stage. The fund started by liberal donations from Sir Wm. C. McDonald, is responsible in a large measure for the growth of this work in Canada, although educational authorities had started some work in manual training previous to the donation of the McDonald fund.

Ontario.—Household science centers have been established in nine schools in Toronto, four in Hamilton, and eighteen schools in different localities. The only high school in Toronto giving work in household science is the Technical High School; the Normal School also gives a course. There are outside classes and evening classes. The course is elective and is given for the first two years and about two hours each week are spent on it. Only a few of the many high schools in

the province have established the work. Mr. Leake, inspector of technical education, has asked, among other things, for a course in household science including needlework, laundry and general house management in every high school. He thinks that without losing any of their cultural value these subjects could and should have a decidedly more industrial trend than they have at present.

Quebec, New Brunswick and Nova Scotia have courses in household science, but nothing definite concerning the work in secondary schools could be learned. In the other older provinces the school districts seem to be indifferent to all forms of manual training while the newer provinces are fully alive to modern demands. In Edmandton the capital of Alberta, the school population has been doubling every three years for the past ten or twelve years and it requires great effort to keep up with the educational needs of the population. Notwithstanding this the school board of the city is making liberal plans for secondary education. The recently erected high school building has excellent equipment for laboratory instruction, manual training and a household science department. An advanced manual training or technical school is to be built in the near future on part of the site of this building.

England.—Manchester and London have been experimenting along vocational lines of study and their example will undoubtedly be followed by other cities. The latter city has recently organized six high elementary or central schools of a new type, one important feature of which will be the practical housewifery classes. Each of these central schools will have attached to it a cottage simply furnished with cooking utensils and laundry equipment. The special teachers will reside in the cottages, and thus housework will be provided for the girls who will receive a continuous course of instruction of about eight hours duration. The general instruction throughout the course for the elder girls will deal with the qualifications of a good housewife, importance of cleanliness and order in the home; care and cleaning of the whole house; lighting fires, setting table, mending, sewing, etc. Home hygiene, simple first aid, and laying out of money to best advantage. Cooking will include preparation of meals, marketing, and household accounts. An entire course in laundry work will be given.

Ireland.—In the secondary schools domestic economy as a subject is growing in girls' schools. In the rural districts hygiene and home nursing have been added during the last two years. Two residental schools for girls who have received a good general secondary education have been established, one in the north the other in the south of Ireland. The nuns of the Ursuline Convent of Waterford have charge of the school in the south and this has now been in very successful operation four years. The one in the north, at Londonderry, is run in connection with the Victoria High School. This school which is known as the "Northlands School of Housewifery," occupies a building specially erected for the purpose and equipped as an ordinary dwelling house, approximating as closely as possible to actual conditions of home life. The course of study is unique as it combines the daily, continuous work of a real household with the formal classroom instruction. At the end of the course a practical test is given to each student in which she is made responsible during a given time for the entire management of the house including planning of meals, work for servants, keeping of accounts, etc. These two were so successful that the demand for another was met by the adoption of a similar curriculum by the Ursuline Convent at St. Joseph's, Slige. This is a large and well established secondary school which has already carried on the course in domestic science outlined by the department of Agriculture and Technical Instruction with great success.

In some places the cost of maintaining the course is quite an item. There are several ways to lighten this burden: One plan is to sell the cooked products. This plan gives the practical work of cooking in normal amounts and it also familiarizes the student with the cost of food materials and the market value of the cooked products. This is done in some parts of the country In other places the food is prepared by the students and sold to the teachers for their daily lunches. In still other places it is sold to the students. This is especially practical where a lunch room is part of the high school, which, it seems to me, is a crying necessity where the high school maintains but one session.

Pupils cannot do good work when they are hungry. The majority of high schools having one session gather pupils from all parts of the city. This necessitates their rising at an early hour, where the session begins at 8:30, as in Scranton. That means breakfast at 7:00 or even earlier, generally earlier. By 11:00 the system is again calling for food. Remember we are talking of growing girls and boys. How many of the thousand students in the average high school carry a suitable lunch to eat at intermission? Very few. The boys patronize the "hot dog" man and the pie wagon; the girls are more apt to spend their money on candy or cakes from the nearest confectionery shop.

Those schools are thrice blessed that have a lunch room where a cup of cocoa, a plate of hot soup, and a choice of nourishing sandwiches may be obtained for a few pennies. Some of the most successful of these are the Willian Penn High School in this city (Philadelphia), others are in Rochester, Rockford, New York, Chicago, Berlin, Ontario. The one at Rockford was opened under the auspices of the woman's club.

In considering secondary schools we must not overlook the normal school in the Philippine Islands that gives a course in domestic science and the Kamehameha Schools in the Hawaiian Islands. These latter were founded by the last princess of the royal line of Kamehama. There is a school for boys as well as for girls. The purpose of these schools may best be told in the words of the

founder in the following provision of her will: "I desire my trustees to provide first for a good education in the common English branches, and also instruction in morals and in such useful knowledge as may tend to make good, and industrious men and women. And I desire instruction in the higher branches to be subsidiary to the foregoing object." Thus showing a rare insight into the needs of the people of her native island. The course in domestic science includes chemistry, physiology, hygiene, and nursing, besides practical work in cooking and all other household duties. In the latter work about two hours practice is given each day to each student. Saturdays, from 9 to 10 for one-half the year and from 9 to 11 for the other half, classes are given special instruction in the science of cooking and its practical application. Each day thirty students have practice in setting the tables, washing dishes and in the care of silver, linen and everything pertaining to the dining room. Each pupil has practice in general housework, washing and ironing.

In Scranton we have but one public school giving domestic science, and that is the Wm. T. Smith Manual Training School. This was made possible through the generosity of Mrs. Wm. T. Smith who gave to the Scranton School Board a beautiful manual training building in memory of her husband. The building was also fully equipped by Mrs. Smith. The domestic science department includes a kitchen and dining room. Although this is a separate building it is really part of the Technical High School. The pupils receive instruction in academic subjects in the latter building and then pass to the manual training building for the practical work. The same number of periods are devoted to manual training as to academic subjects.

As no domestic science whatever is given in the grade schools the first year the simplest cooking is taught, also washing dishes, building fires, caring for the fire and general housework. The second year preserving, canning, pickeling and and jelly-making are taught. Samples of these are kept on hand from year to year and are shown in answer to the never-failing question of visitors, "What do you do with the food you cook?" These are also kept on hand for the annual school exhibition. Courses in waitress and laundry work and in invalid cooking are also given the second year. The third year more advanced cookery is given, also courses in dietetics and house nursing. In the course in dietetics the students make out daily and weekly menus and estimate their cost, putting these into practice as much as possible in their own homes. These are discussed and criticized in class as to food value, cost, if amounts are satisfactory, etc. Home criticisms are reported on also. In making out some of these menus the students are limited as to cost, thus giving them a practical idea of cost and quantity and also giving them practice in substituting cheaper dishes for more expensive ones. They learn to substitute apples or possibly stewed prunes for breakfast for the expensive grape fruit, creamed codfish for chops, cheese for meat, peas for asparagus, etc. Practice is given in cooking meals and serving them in the well-appointed dining room. Some of these meals are served to the students themselves, others are served to the members of the school board. In connection with the school work the students visit the packing house where sides of beef and whole pigs are cut up and the various cuts explained to them. A model dairy farm, bakery and laundry are also visited.

A brief summary of secondary schools in the United States shows that there are (June, 1911, Home Economics) 102 normal schools. Besides these there are 64 receiving state aid for instruction in agriculture and home economics. There are 634 high schools, 16 land grant institutions of secondary grade, 69 secondary and elementary institutions for negroes and 137 secondary and elementary schools for Indians. But 14 states have legislative provisions for teaching domestic science in public schools.

Before closing, I do not think it would be out of place to speak of the great loss to students of domestic science, in the death of Mrs. Ellen H. Richards. For twenty years she has been the moving spirit in Home Economics, even before it had a name. Since 1889 she pleaded for domestic economy as a "factor in public education." Some of her latest words were, "Have faith in the working out of the destiny of the race; be ready to accept the unaccustomed, to use the radium of social progress to cure the ulcers of the old friction. What if a few mistakes are made? Try all things and hold fast to that which is good."

Prof. C. B. Pennypacker, principal of the York High School, read a paper on

INDUSTRIAL COOPERATIVE EDUCATION VERSUS COOPERATIVE MANUAL TRAINING IN HIGH SCHOOL.

My only excuse for presenting this paper at this time is that I was told to do so, because of local interest in a part-time industrial course of study, inaugurated in the York High School this year, the fifth city in the United States, as far as I know, and the first in Pennsylvania to promote industrial education, in what is known as The Fitchburg Plan of Co-operative Education, which was inspired by the work of Professor Herman Schneider of the University of Cincinnati, "who more than ten years ago saw the fallacy of trying to train a young man to do something without actually making him work at it," or to quote another authority on vocational education, "practice and thinking about practice, practical and technical training, must go hand in hand in effective vocational training of any type."

The high school has done much to disseminate culture and professional advancement; but it has done very little for the advancement of specific vocational training for the 90 or 95 per cent. of our high school pupils who neither go to college nor engage in professional vocations. And yet from the stand-

point of numbers, both individually and socially, it is more important that the activities of the mechanic be tempered with intelligence and culture than are the activities of the professional man or woman, for which the profession itself makes certain demands in educational and professional efficiency. My thought is that the secondary schools are obliged to educate every boy and girl, or at least to contribute directly to their education for the largest efficiency in vocational and social activities. They must not only contribute directly to the professional and social welfare of the 5 or 10 per cent., but to the 90 or 95 per cent, who should finally become efficient workmen—to properly educate those who graduate from our high schools and are not specially trained for any vocation. What disappointment and even deception obtains as to the outcome of the usual high school course of training to many of those who graduate—and to their sacrificing parents! The public high school, if it subserves its mission, must give to its graduates something definite for college preparation and professional life, as well as something definite for the more restricted but equally important vocational life of the journeyman; and there seems to be no limit or way of escape to this larger vocational and to the personal needs of all who commit themselves to our educational leadership and professional instruction.

What we, as schoolmen, have done independently and with assistance from the laity, to promote and to establish in our high schools vocational courses of study, has been very limited and unsatisfactory from the standpoint of the need for industrial education. Hear the statement of this need by the National Society for the Promotion of Industrial Education in four particulars: The need for industrial education is manifest: 1. To meet modern conditions of manufacturing and to enable the United States to compete in the markets of the world. 2. To provide that kind of training under conditions of specialization which used to be given by apprenticeship. 3. To open to boys and girls a wide range of employment through giving them a broad familiarity with industrial processes. 4. To adapt public education to the real needs of American youth, nine-tenths of whom take up directly or indirectly industrial careers. This kind of an educational program may sound strange to a body of schoolmen; but, ladies and gentlemen, if you will open your eyes to the signs of the times you will see that this is not an extravagant or too elaborate program from the real need of 90 per cent. of our high school pupils.

Turning for a brief survey to the educational aims and efforts of secondary schoolmen in the United States for the industrial efficiency of our boys and girls, what have we accomplished? As I see it, probably no institution has done more than the public high school towards the intellectual, political and social uplift and freedom of its local citizenship and the general welfare of the community-life. But when it comes to the making of intelligent and efficient workmen we have done very little, considering the recent past and present tendency in the more modern industrial need of the majority of our boys and girls. Indeed, the charge has been made that the ordinary high school training leads young men and women away from the idea of an industrial career without giving them anything to which they may turn immediately for a livelihood.

The attitude of schoolmen to vocational training in secondary schools is well told on pages 181 and 182 of "Education in the United States," edited by Dr. Butler, from which I quote the words of Dr. E. E. Brown: "The European manual training exhibit at the centennial exhibit in Philadelphia in 1876, gave a strong impetus to a movement already begun toward the establishment of manual training schools in American cities. In these schools, the idea of manual training for the purpose of general culture was usually uppermost, their projectors disclaiming any intention of establishing schools for the purpose of teaching trades. More recently trade schools have been established in the larger cities, but for the most part under private initiative and control." And we were satisfied, in our thinking and practice that this work was being well done under the right auspices, while we were doing the more important work along cultural and professional lines for the vocational welfare of the few, who have attained to professional careers, the five per cent. Add to the manual training movement in secondary education the establishment of commercial high schools, and commercial departments in ordinary high schools, and our efforts to be definite and specific along the line of vocational training is briefly told.

Do we realize from this how we as schoolmen have been bound to the traditions of an academic and professional purpose in secondary education without taking into account the individual and collective needs of an advancing and diversified or specialized social organism, which means specialization in school work, if schools are to contribute their share to the social, political and industrial efficiency not only of the few, but of the many, yes, of all who attend them? I would not detract from the great and lasting good accomplished by our schools, but I would place them in the first place for meeting the educational aims and needs of all the pupils who attend them, whether their talents and tastes and social environments lead to a professional, a commercial or an industrial career. And in this up-to-date educational advancement, the method should not be one of substitution only, but the work we have been and are now doing should be supplemented and adjusted so that all our youth may be equally educated for the work they are best qualified to do naturally, and by adequate training in the name of the public school. I speak for the reorganization or readjustment of secondary schools rather than the organization of new and separate schools, whether in or out of the public school system.

I quote again from the authority and book just mentioned to show our attitude on voca-

tional training in the secondary school, when I say that the recognition of the importance and need of purely vocational schools of secondary grade puts a new aspect on the problem of the school curriculum. Americans are loath to recognize any necessity of a bifurcation of courses, such that the student taking one road finds the way open to indefinite advancement in higher studies, while one taking the other alternative finds a definite limit a little way before him. We have commonly failed to recognize the need of turning aside at some point early or late to master a distinct occupation in life. We have been willing to sacrifice expertness in one's calling in the hope of unlimited progress in higher education.

But our attitude educationally, as schoolmen and as a people, is slowly but surely changing in respect to vocational training, because of native wisdom and the commercial and social advantages of other people. Germany is a good example, and is far in advance of the United States in modernizing and socializing education; and if schoolmen will not lead in this matter, they must follow the lead of the people, whose viewpoint of industrial education is well analyzed by Arthur D. Dean, chief of the New York State Educational Department, in a circular recently issued on vocational education, in which he says: "1. That in the minds of the mass of the people, industrial education means the re-directing of our public schools through recognizing that they must be adapted to the needs of the people. 2. That industrial education used in its broadest sense is in no way antagonistic to the general functions of education which is to develop and train the mind; but the mind may be trained by means of many subjects, and some subjects and processes are best for one group of persons, and other processes for other groups. 3. That effective education should (*a*) develop out of experience; (*b*) this experience should have relation to vocations and to the pupil's part in life, and (*c*) every school should be the natural expression of the life of its community. 4. That a school system should be flexible and adaptable to all conditions. 5. That a chasm exists between our educational system and our modern life. In the schools, on the one hand, discouraged boys and girls, abnormals, belateds, and delinquents, find themselves unable mentally and physically to continue with credit the culture process of our secondary schools; on the other hand, we find that science, inventions, and specialization continue to withdraw from the old-time chores—former occupations which gave mental development, and to transplant them beside the automatic machines of our factories."

This analysis from the viewpoint of the people means vocational training of a more effective or definite character than that heretofore or now offered by manual or technical training under present conditions. From the standpoint of the industrial and general educational needs of all the people, it seems evident that manual and technical training in our secondary schools has not contributed very much to the industrial efficiency of those who have profited by it. Indeed, I shall quote expert testimony to show this feeling on the part of those who know the status of industrial efficiency in theory and in practice.

Speaking of New York State in particular, where industrial education in manual and technical courses and schools has been very well-organized, largely by schoolmen for general culture and not for general industrial efficiency, Mr. Dean, in the circular mentioned above, says in a final word on vocational training: "No note of disparagement of the work of the advanced technical courses in the manual training high schools is intended. But it should be known that they are essentially college preparatory schools or schools of general culture, and that they do little in the way of training workmen. The state now stands in need of training in craftmanship. The state has had the habit of providing schools which lead to professional more than to industrial employments. This is a discrimination which is unjust to many of our people and it is clearly a disadvantage to the community."

This statement of the present and the past aims and results of secondary school work in New York, as related to the larger vocational need of all the people, is generally true and will be evident from other testimony which I shall give.

A quotation from an address of Mr. W. F. Thomas, supervisor of apprentices of the Atchison, Topeka & Sante Fe railway system, will give meaning to the work of the public schools, as now organized, to meet the present demand of industrial education, when he says, "There is nothing that will take the place of an apprenticeship. There is no trade school or training school in the country that will turn out young men or boys who are capable of entering a shop and competing with the average mechanic; while they may be taught considerable book learning, their practical instruction must of necessity be limited. There is nothing that will take the place of practical experience. Manual training is in our public schools, and trade schools may bring out talent, may display the genius, but the boy even after completing such a course has no conception of time, no idea of the practical use of jigs, templets, etc. If a boy's mind is imbued with the idea that as soon as he graduates from a training school, he can enter a modern shop and can work along side of regular journeymen, competing with them, he has been deceived."

More convincing and concrete evidence than the testimony of representative school men and commercial men are the various continuation and industrial schools, as now organized and administered in and out of the public school system. They have not and are not meeting our industrial needs; and, if I interpret these various attempts aright, they mean that the public schools have not been sufficiently vocationized or socialized to meet the industrial needs of their own product in its relation to immediate service.

May I say that all of these schools have done and are doing an excellent work indus-

trially for the boys and girls in our schools, and for those particularly who have discontinued regular school work, by helping them to continue or to complete a work which should have been completed, while they were enrolled as regular pupils in the public schools as such. My thought is that with the completion of the high school course of study our graduates, who contemplate an industrial career, should be a finished product, and step from the school into their chosen vocation.

As introductory to the discussion of this part of our problem, I can do no better than to quote from several eminent authorities in advancing vocational training in the public schools, especially in the high school. C. A. Prosser, Deputy Commissioner of Education, State of Massachusetts, in an address before the Fourth Annual Convention of the National Society for the Promotion of Industrial Education, Bulletin No. 13, Part III, has this to say: "The whole practice in the American public school system has thus far been based upon the theory that the training of minors, under 18 years of age at least, should be directed and controlled by the public. This principle seems to be worthy of acceptance in the development of part-time day instruction for pupils between 14 and 18 years of age. To the extent to which conditions of employment will permit, the practice of the shop in any part-time scheme should be suggested and directed by the school, to the end that instruction in the principles and the arts of industry may be effectively correlated and the child receive a vocational training that will give breadth and thoroughness and adaptability."

His definition of vocational education is good, when he says: "Vocational education is education that has for its controlling purpose the fitting of persons of either sex for definite callings or pursuits. Practically all callings may be classified as professional, commercial, agricultural, industrial, household and marine or nautical. When vocational education fits for law, medicine, theology, teaching, engineering, etc., we call it professional education. When vocational education fits for service in business, we call it commercial education. When vocational education fits for wage-earning or productive work on the farm, we call it agricultural education. When vocational education fits for trades, crafts and manufacturing pursuits, including the occupation of girls and women carried on in workshops, we call it industrial education. When vocational education fits for occupation connected with the household, we call it household education. When education fits for occupation connected with the sea, we call it marine or nautical education. The emphasis in vocational education should be along the line of agricultural, industrial, and household pursuits."

Dr. Snedden in discussing this question in the same convention said in part: "It is now generally conceded that all successful vocational education involves two fundamental aspects, viz., practice, and the study of practice as related to theory. The second part of this education can be given under school conditions; the first part must be obtained under shop, field or household conditions, or wherever it is that men learn to do effective work. In several lines of productive enterprise, vocational education, partly supported by the State now seems inevitable. It is therefore of the highest importance, both from the standpoint of economy and of efficiency, that both the school and the workshop be enlisted in the fullest possible measure. The time has arrived for a candid examination of the whole question."

Again, let me quote from the circular on vocational education by Arthur D. Dean in coming closer to my story: "The problem of training children to take their place in the world's work demands that the child be placed in a working environment, and the greater the resemblance between the present and future fields of activity the more effective the training received. Industrial arts not being a matter of textbook or recitation but rather a reproduction of processes, furnish the pupils a rich industrial experience, develop adaptability through working over, under and with others, and habituate pupils in a degree to such planning of work, estimating of cost and economizing of materials as the outside world will eventually require."

A brief quotation from Mr. H. E. Miles, chairman of the Committee of Industrial Education, National Association of Manufacturers, is in place at this time. "The plan (of industrial education) recommended by the great industrial associations and what is now in active operation in Cincinnati, Ohio, Fitchburg, Mass., York, Penna., Columbus, Ohio, and several other manufacturing centers is termed the co-operative system, under which boys are given part-time instruction in factory work and part-time in schools. Heretofore boys who have secured employment in shops were compelled to leave school entirely. The new plan continues their education, and at the same time enables them to earn a living. It is a most encouraging sign of the new order of things that both employer and employe cordially favor this attempt to increase the skill and the citizenship of our youth."

I might quote from labor leaders to prove the feasibility and desirability of this plan of vocational or industrial training in sentiments like this: "Nothing but a thorough Industrial Education and understanding of economic interest in society, can lead the necessary union between capital and labor, and give peace and prosperity to the present disturbed and suffering industrial world. The manufacturers must cease to spell efficiency with the letters s-p-e-e-d; the employe must cease to accuse the manufacturers of spelling it g-r-e-e-d."

Co-operative Industrial Education, as recently inaugurated in the York High School, has been inspired by and modeled after the Fitchburg Plan. I should be glad to allow Mr. W. B. Hunter, Director of the Industrial Department of the Fitchburg High School, to tell the story for us, as he has told it in Bulletin No. 13, Part 3, but space will not permit for as I see it, he has done more in the organi-

zation and administration of this particular work than any other person.

The two year co-operative course of study in school and shop in the Cincinnati high schools is similar to the Fitchburg Plan in organization and administration. But students who are not admitted to these co-operative courses after a two-months trial, or who are not permitted to do so for other reasons, may receive pay for full time and attend Continuation Schools one half-day a week at public expense without loss of wages until their apprenticeship is completed. In the Machine Shop Continuation School the work continues for "48 weeks a year, eight hours a day, four and one-half days a week, besides two half-days which are spent by the teachers in visiting the boys in the shops, seeing conditions under which they work, consulting the foremen about the needs of the boys, and getting ideas and materials for their guidance in teaching. This is an essential part of their work, for there is no handed-down course of study as yet. It must be worked out as they go along. In September of this year a Printers' Continuation School was opened in Cincinnati. As far as I know there is no printed matter describing the industrial work in the high-schools of Columbus, Ohio, so we must leave it for your personal investigation, if you are interested.

You will have noted the limitation of this co-operative education to the machine shop and the school, since the want of intelligent and skilled mechanics seems greatest in this particular vocation. But who can say what the possibilities of this plan of education will be, when finally worked out, in touching all the vocations connected with the shop, the farm and the household, and their allied activities? It seems to me that in this latest educational movement along specific industrial lines we are approaching, and will more fully realize the educational aims for the many instead of the few, by bringing to pass a greater industrial efficiency, a better social service, a better citizenship and let us hope a larger, freer and more contented life among the industrial classes, as well as a more sympathetic and normal relationship between capital and labor.

Who doubts the crying need for greater industrial efficiency and a better understanding in the educational aims noted above? What the schools and the shops, farms, and homes have not accomplished separately or working independently, let us hope they will accomplish by the co-operation of all, especially the school and the shop.

In a survey of the educational renaissance for a better social and economic adjustment in industrial education, I am pleased to note the broad-minded and generous attitude of all parties concerned—educational thinkers, labor leaders, manufacturers and workmen. Never in any educational reaction or advance has there been such a universal harmony as in this vocational concept and movement, which augurs well for its ultimate and general success.

The labor leaders and employers of labor are not willing to promote industrial efficiency at the expense of a larger and better social and political service. Therefore, they say the boy is better cared for, and better trained in school for his larger future welfare while he is learning his trade than he would be in a shop, or a shop plus an apprenticeship school in connection with the shop. They have faith in the public schools for the work they have done in general culture and a larger life. They would supplement the work of the schools and co-operate with them in promoting an industrial efficiency which each party, unaided, is unable to do. They have faith in their ability to do the part of the work to be assumed by them, and a like faith in the superior ability of the schools to do their part of the work.

After stating the real needs of the industrial world to the schoolmen, the employer of labor is willing to allow the schools to work out the theoretical side of an industrial education in the methods of work and school administration, as Mr. Hunter has well said in connection with the organization of the Fitchburg work.

Time will not permit a fuller discussion of the larger social and economic as well as personal advantages which associate themselves with vocational education in the broadest and fullest outlook, such as is given in Gillette's book on "Vocational Education." For the best current literature on the subject as to results already attained, and tending, write to the National Society for the Promotion of Industrial Education 20 West 44th Street, New York City, which has issued thirteen bulletins on this subject, any or all of which may be had for the asking and to the last of which I have made especial reference. In conclusion, let me say that I have studiously avoided mention of Co-operative Industrial Education.

Our work in York is very promising. We have extended the privileges of taking up this work to all the boys in the school, with the result that 58 first-year boys, 39 second-year boys, 1 third year student, and one graduate have elected this course. We started the work as a double course in the first-year, which is all school work, and in the second year, which is school and shop work, doing practically the same industrial work directly relating to the shop. The academic or general work in this course is the same as the regular courses and is done by the regular teachers of these subjects while the specific work is done by the supervisor of industrial education, who does school work part of each day and visits the shop the remainder of the day and on Saturday. There is splendid inspiration in this work, and with a very limited experience we can earnestly commend and recommend it wherever the local conditions will permit.

In York we have planned the work for two years all of which is in the making in detail; but to be accurate I should say that we have changed the course slightly, in the first and second years as compared with the same work at Fitchburg, as follows: Our first year is all school work, English 5 periods per week;

arithmetic, tables and shop problems 5; Concrete geometry 5; algebra 5; freehand and mechanical drawing 10—total 30 periods. Second year, school and shop work: English, 5 periods; algebra, 5; geometry, 5; physics, 5; mechanism and machines and shop problems, 10; freehand and mechanical drawing, 10—total 40 periods. The work in first-year arithmetic, second-year mechanics, and drawing is in charge of the supervisor. As intimated before, the regular work somewhat modified, is done by the regular teachers.

The work, as far as I have observed it, is a beautiful study in the correlation of studies to work, the work of the school room in large part growing out of real conditions out of school, which lends itself to a process of elimination in non-essentials, a most hopeful outlook for much secondary school work; and I believe the day is not far distant when the industrial work we are now attempting to do will receive full recognition and entrance credits in the higher institutions which offer technical courses.

Prof. A. M. Snyder, of the University of Pennsylvania, next read a paper on

DELINQUENT CHILDREN, WITH MORE EMPHASIS ON THE REMEDY THAN ON THE CAUSE.

Weber says, "As long as there is no exact definition of the notion of God, a man has as much right to espouse atheism as theism. Theism, if by God is meant the one indivisible Providence that governs the world; atheism, if we mean those anthropomorphic beings with whom the Greek imagination peopled Olympus." The main thing therefore in our discussion of this subject is to come to some agreement as to the term "delinquent pupils" and clearly define it. The question immediately arises, What meaning did the committee who formulated the programme have in mind for the term "delinquent"? Did they on the one hand assume the term to be synonymous with retardation, and therefore mean by delinquent pupils all such as for some reason or other fail to keep up with their grade, or shall we interpret it in its now commonly accepted psychological and legal sense as including all such children as commit offences either against the laws or the customs of society and therefore not necessarily synonymous with retardation?

Fortunately, whether we assume the first or the last interpretation of the term delinquent the whole problem seems to be summed up in Campbell's famous words, "Crimes are faults writ large, and idiocy is but the extreme of dullness."

In connection with the former Morrow's tabulation of the conduct of 3,012 boys ranging from eleven to eighteen years of age is very significant. Classifying them in groups of good, bad and indifferent, according to the teacher's estimate he found at eighteen years of age 74 per cent. of the boys were of good behavior, at eleven 70 per cent., at seventeen 69 per cent., and at fourteen only 58 per cent. In positively bad conduct the maximum was reached at fifteen years of age, and thirteen and fourteen were just a least bit better. But it improved at sixteen, seventeen and eighteen. In other words, "Conduct was good at eleven, declined at twelve and thirteen, sank to its worst at fourteen, then improved in yearly increments which did not differ much, and at seventeen was nearly as good as at eleven, and at eighteen four points better."

From such facts as these it is evident that the pubescent boy and girl are not wholly responsible for their delinquent acts. The various physiological changes which the body undergoes at this time place both body and mind in an unstable equilibrium. The moral and non-moral are at constant war with each other, and even under a constant perfect environment innate anti-social instincts frequently gain the supremacy.

The child is born with a certain amount of innate potential capabilities which are neither social or anti-social. It is born with a nervous mechanism which is capable of responding to its environment through impulsive motor discharges which are entirely outside the control of consciousness. In all such activities consciousness is only a concomitant factor, not a controlling factor. It is the peculiar something which stamps the experience as pleasant or unpleasant, and in the light of which future responses to the same stimulus are determined. If, therefore, such psychic experiences produce pleasant sensations, they tend toward augmenting the activities which at first were entirely impulsive. But if on the other hand the conscious effect is unpleasant, gradual inhibition of the activity is the result.

During the period of infancy all the reactions of the child to its environment are almost entirely instinctive. During childhood past experience is beginning to play a more dominant part, and habits are being formed, which tend toward making the child a more or less mental automaton. The working capital, *i. e.*, the latent possibilities which have been furnished by heredity, is now being arranged and set in order through conscious experiences which are wholly dependent upon the kind of environment to which the child is subjected. If it is born into an English-speaking family it will speak the English language with its customs and habits. If into a French-speaking family, the French language with its customs and habits. Or if in certain sections of Pennsylvania, he will no doubt have the more or less euphonious twang, characteristic of such sections, as well as their customs and habits.

Then gradually as the child develops there blend with these home and family customs and characteristics the experiences resulting from contact with the community in general of which he now forms a part. So that now the habits formed are the results of his composite experiences with a community as a whole. He now gradually learns to read, he attends various social gatherings, he attends church and Sunday School, various dramatic and musical entertainments, athletic games, and if the community is fortunate or unfortunate enough to have moving picture shows he will be sure to attend them. So we

might go on, but these will suffice to show that now his experiences which are moulding him into an individual citizen are exceedingly complex. The home alone is no more wholly responsible for either the physical, mental or moral condition of the child. At each particular moment of the child's life his adaptation and kind of response to his environment is always determined by the co-operation of two forces, (1) his innate inheritance, and (2) the combined effect of all his past experiences upon such inheritance.

The child, as well as the youth and the adult, is undoubtedly a resultant product of these two factors. This is not the doctrine of fatalism. What it means is that the pupils under our care and instruction are not wholly responsible for either their physical or mental or moral condition, but that they are the combined product of the parents, the home, the school and the community.

Whether, therefore, we interpret the term "delinquent" in either its true scientific and psychological sense, as an infringement upon the statutory or customary laws and regulations of the school,, home or community, or in its more popular interpretation as synonymous with retardation, the basis for an effective remedy is the same.

Since all but two of the answers to my questionnaire put the latter interpretation on the term delinquent, and there being no separate paper on the subject of retardation, I shall treat the subject almost entirely as synonymous with retardation, and in so far deviate from its true psychological meaning, touching in part upon its kindred subject elimination.

A very potent factor to be considered, which is responsible for no mean proportion of retardation and especially elimination, is the now almost universal practise of classifying all students on the basis of mentality. Such a classification is at best, more or less adjusting the child to the cirriculum instead of adjusting the curriculum to the child. In essence it is making the curriculum of prime importance. It thus frequently happens that a post-pubescent boy of sixteen or seventeen is put in the same class and section with a pre-pubescent boy of twelve or thirteen. Far better than such a classification is that of a chronological division, as far as feasible. But even such a classification lacks perfect adjustment, and especially is this true during the adolesent period.

Dr. Crampton, in his adolescent study of 4,800 boys enrolled in the New York City high schools found that the age of pubescence varies from twelve and a half to eighteen years. At 12½ already 60 per cent. belonged to the post-pubescent class, 69 per cent. belonged to the pre-pubescent, the remaining 25 per cent. to the pubescent. At thirteen years 55 per cent. were pre-pubescent, 26 per cent. pubescent, and 18 per cent. post-pubescent. At 13½ years 41 per cent. belonged to the pre-pubescent class, 28 per cent. to the pubescent and 31 per cent. to the post-pubescent. At the age of fourteen approximately ¼ were still pre-pubescent and 4 per cent. less than half belonged to the post-pubescent class. At 14½, 60 per cent. to the post-pubescent, and still 16 per cent. belonged to the pre-pubescent class. At 15 years 9 per cent. still belonged to the pre-pubescent class, and not until eighteen years of age had all matured. On this same basis and characteristic ages, the post-pubescent were more than 33 per cent. heavier, 10 per cent. taller, and 33 per cent. stronger than the pre-pubescent.

But to fully appreciate the significance of this great disparity between the chronological and physiological age of the adolescent in relation to classification, retardation and delinquency, we must also briefly note the structural and functional changes that take place during this period. On the structural side during the early part of this period it seems as though nature conserves most of the energy for the rapid development and changes both in size and capacity of the internal organs. The nervous mechanism becomes rapidly more complex through a marked increase in the number of the association fibres. These decided changes in the physical nature of the boy and girl tend undoubtedly to make this the most critical period in all childhood. It is a period "when the possibilities for psychical arrest are as numerous as are the possibilities of growth." Frequently there is a more or less general arrest, the cause of which may be beyond the control of the teacher. To this class belong the listless, the apathetic, the indifferent, the dull students. Among the remedial causes producing this general arrest are mal-adjustment of the student to his work, intellectual confusion due to lack of proper mental assimilation, emotional waste due to worry and excessive fatigue.

There may be an arrest in the power of mentation. Among its symptoms are "vagueness of expressions, diffusion and incoherence of ideas, and impracticable and visionary notions." Among the primary causes producing this mental congestion is the lack of concrete teaching and over-crowded curricula, in the first year especially. So that even the otherwise normal student may become arrested in mental development and to that degree retarded.

On account of the emotional instability the feeling in regard to self frequently becomes perturbed, and thus becomes a secondary factor in retardation. This may take two forms, either exaggerated self-regard or exaggerated self-depreciation. Among the symptoms of the former are self-conceit, boastfulness, contentiousness, etc., and of the latter, self-distrust, shrinking from difficulties, over-sensitiveness, and suspicions. Among the causes contributing to this mal-development are such factors as excessive emulation, the marking system, class honors, wrongly assigned tasks, discouragements, harshness, etc. As Dawson says, "The school should neither stimulate nor wound the student's pride unduly. It is the very center of soul's gravity."

Another and very important factor producing retardation I mention with some diffidence, on account of its frequent mis-interpretation. I have reference to precocious development

in the sexual life. It is the one subject for the information of which the adolescent boy especially is thrown upon his own resources. Parents and teachers alike are in this connection guilty of a gross neglect of duty.

It is a well proven fact that precocious development of the sexual life tends toward arrested development in bodily growth. But this is no less true in its baneful effects on the mental and psychic life. Since, in the biological evolution as we go up the scale of animal life, the length of life between birth and sexual maturity is simultaneously increasing, precocity in this connection is undoubtedly a step toward atavism. And our reticence on this most important subject for the adolescent, is undoubtedly responsible for a large per cent. of adolescent delinquency and retardation. Especially is this true of the class of boys and girls, whose emotional instability puts them into the class of storm and stress. Possibly many of the cases of sudden self-demotion from the class of the excellent to the class of the mediocre or even failures, so frequently met during this period, could be obviated through proper guidance on the part of parents and teachers. It is no doubt important that "the social environment of the school life, example and precept of parents and teachers, and subject-matter of education should combine to prolong the ripening process of sexual adolescence."

Of the forty blanks returned in answer to the 138 copies of the questionnaire I sent out, only 15 attempted to state the causes for retardation on the basis of percentages; and of these only two claimed a rather close approximation to a correct percentage evaluation for each cause. So that it is very evident that the records kept in this connection are far from complete.

Added to this difficulty are the variations in degree of the causes mentioned as responsible for retardation in different sections of the state. It is obvious that with so varied a population and different industrial and social surroundings the causes for retardation also vary. But there is enough unanimity of opinion in regard to some of the causes to place them in a group by itself, which I shall call the primary causes.

Of these sickness as a cause for retardation varied from 5 to 50 per cent., with an average of 25.5 per cent. Irregular attendance varied from 15 to 30 per cent., with an average of 22 per cent. Judging from investigation I am inclined to believe this to be a very close and correct approximation. Indifference on the part of the parents varied from 10 to 25 per cent., with an average of 16⅔ per cent. Poor teaching as a cause of retardation varied from 10 to 20 per cent., with an average of 12 per cent. Inadequate preparation from 10 to 20 per cent., with average of 14 per cent. Inability on the part of the student from 10 to 40 per cent., with an average of 20 per cent. Athletics, dancing, boys' clubs, social attractions, etc., varied from 10 to 50 per cent., with an average of 35 per cent. Lack of application from 15 to 55 per cent., with an average of 33 per cent. Assistance needed at home from 15 to 75 per cent., with an average of 45 per cent. These nine causes seem to be the most essential for our consideration.

Among the secondary causes assigned are truancy, lack of clothing, visiting, malnutrition, bad roads, depravity of pupils, timidity, tobacco, breeding (meaning I presume heredity), physical defect, working out of school hours, etc., averaging approximately 10 per cent. Arranging the primary causes in the order of their importance and on a percentage basis we have: Assistance needed at home, 20; athletics, dancing, boys' clubs, social attractions, etc., 15; lack of application, 14; sickness, 11; irregular attendance, 10; inability, 9; indifference of parents, 7; inadequate preparation, 6; poor teaching, 5; miscellaneous, 3.

What now can be done to off-set these causes for retardation and elimination of our high school pupils? A moment's reflection shows that only four of these causes are not directly under the control of the schools. These are, assistance needed at home, sickness, inability, and indifference on the part of the parents. This means that the cause for only 47 per cent. of the retardation in the high school is beyond the direct control of the teachers. But it is reasonable to suppose that no mean percentage of these cases can be corrected through indirect means, and, by proper tact and procedure on the part of the teacher and principal, the 47 per cent. can be reduced considerably. Of these four causes "assistance needed at home" and "indifference on the part of the parents" can be considered simultaneously since they usually are co-operative.

In an investigation on the cause of leaving conducted by a supervisor of schools in one of the south-central states, it was found that approximately 37 per cent. of the boys and 18 per cent. of the girls leave school to go to work. Further investigation showed that of the 37 per cent. of the boys who left to go to work, more than half were in the first half of the class in ability. Hence retardation was not the cause of their elimination. "Of their parents 21 per cent. were above medium in wealth, many were not poor, and many more could have remained if there had been sufficient desire. In reality only 19 per cent. of the boys who left school really had to help support the family." If lack of interest in high school work has such a baneful effect on the pupil of more than average ability, what will it be in its effect on the dullard and mentally retarded?

In regard to sickness as a retarding factor, no doubt it also can be lessened through more perfect medical inspection and proper health supervision, instruction in diet and, for high schools especially, the reduction of fatigue to a minimum through appropriate exercises. During the adolescent period, when so much energy is needed for the proper structural development of the boy and girl, not only is the pupil more readily fatigued but he now becomes susceptible to adult diseases and ailments, all of which need careful consideration.

As to "inability," if it be true that approximately 10 per cent. of retardation in the high schools is due to inability on the part of the student, it means that high school courses should contain more electives in the line of practical work. It does not mean that the courses are to be made much easier but they should be so adjusted as to meet all grades of mentality.

One method of dealing with these retarded and dull pupils is to follow the method of an 8th grade teacher who said, "We get rid of all those of mediocre ability by working them out, and thus save a class of choice intellects for the high school." But when boys are just entering the adolescent period, how shall we know which are the ones with choice intellects? Maybe the boy who was asked by the Superintendent what the trouble was that he was not getting along with a certain teacher hit upon the correct answer when he said, "She just don't know what a kid likes; that's the trouble."

Such a teacher would get rid of a Charles Darwin, who was incapable of mastering any language; and his father once said to him, "You care for nothing but shooting, dogs, and rat-catching, and you will be a disgrace to yourself and all your family." William H. Seward's teacher once reported to his father that he was too stupid to learn. Patrick Henry was too idle and too much interested in field sports to gain advantage from the opportunities thrown in his way. Sir Isaac Newton at twelve was extremely inattentive to his studies and stood very low in his school. So little ability did he show that at fifteen he was taken out of school and put to work upon the farm. Robert Fulton was a dullard because his mind was filled with thoughts about other things than his studies; and the birch rod became a frequent persuader. Oliver Goldsmith's teacher in his early childhood thought him one of the dullest boys that she had ever tried to teach. She said he was impenetrably stupid. Henry Ward Beecher at ten years of age according to his sister was a poor writer, a miserable speller, with a thick utterance, a bashful manner which seemed like stolid stupidity. As a boy James Watt was the butt of his playmates who jeered at his dullness. David Hume's mother said of him, "Our Davie's a fine, good-natured crater, but uncommon wake-minded."

In the spring of the year hot-beds are occasionally seen in which some plants have grown so tall that they touch the glass and gradually become dwarfed. What should be done is to transplant them into a bed adapted to their size. Just so with high school boys and girls. Some of them are ill-adapted to the only course opened to them, and like the plants they gradually become dwarfed and retarded. What should be done, is to transplant them to a course adapted to their needs. The slow boy and girl must be given time. They should be given something which they are capable of doing; and it is necessary to keep in close touch with them so that they will not lose faith in themselves. At this age it is very essential for the mental and moral health of the boy to engage in something in which he may succeed. So that the evil effects of mal-adjustment are due to the system in vogue which confines them to a dull routine of school failures.

A seven-year-old boy was kept in the first grade two years because, as his teacher said, he was too dull to go on. The superintendent placed him under another teacher and at the end of the year he was leading his class. In the first school the phonetic method was used, which is adapted to auditory memories. As soon as the visual method was employed he became bright. This typical case explains the basis of one phase of dullness. In most of our educational systems very little attention is paid to the discovery whether a child belongs to the visual, auditory or motor-minded type. And yet it seems as though boys and girls who belong decidedly to any one of these types have psychically very little in common with the other types.

Another factor producing mental dullness is the rigidity in our courses of study and daily programmes. The psychological moment in mentation is undoubtedly the moment of enthusiasm. So that coercion must play a very insignificant rôle in a good educational scheme. It is asymmetrical to the psychic life.

Is it therefore not possible that for many of our boys and girls "inability" or "mental dullness" is synonymous with mal-adjustment? If this be true, it naturally follows that when once we begin to study the individual child more and the course of study and methods of teaching less, we will have made a great step in educational progress; and the 10 per cent. of "inability" will be greatly reduced. So that even this class may be in a measure at least under our control.

Of the remaining five primary causes of retardation, "lack of application" and "poor teaching" may also be considered together. The former may be said to be due to lack of enthusiasm. This may be due entirely to the fault of the pupil or to the teacher or to both. If the pupil is at fault the causes producing them may be either internal or external. From the internal side the causes may be physical or mental. If physical they may be hereditary or acquired. If hereditary, they are no doubt beyond our control and need not be further considered in this connection. If they are acquired, the causes may be due to ignorance on the part of the pupil, especially of things relative to the adolesent period, to which reference has already been made. It may be due to mal-nutrition, which one superintendent estimated as high as 20 per cent. It may be due to over-work either in school or out of school. It may be due to an abnormal interest in athletics, social attractions, etc., in cases where the pupil fails to get the necessary amount of rest.

Body and mind are very closely related and anything that interferes with the normal bodily functions will to that degree become a factor in causing retardation. So that on the mental side any one of the causes just referred too may produce mental lethargy. And be-

cause of lack of bodily buoyancy, lack of application is almost inevitable.

Dr. Hall, in an address before the N. E. A. on this period, said: "Adolescence is a period of change when the soul is everything by turns and nothing long. It explores the whole gamut of feeling, will and thought. There are spells of almost invincible laziness, both of mind and body, and restlessness and mobility, and utter silliness, and idiotic nonsense, inattentiveness, suggestion and also morbid obstinancy and sympathy. Super-sensitiveness is succeeded by carelessness; excessive conscientiousness by immorality." "As practical suggestions," he says, "make the school interesting, vital rather than mechanical; exercise all the powers rather than memory alone; avoid strain and over-work."

The external causes may be very varied, and, as applied to lack of application, usually involve the co-operation of a number of factors; and the mere mentioning of some of them is to suggest a remedy. Among the most important of these causes are irregular attendance, athletic and social attractions, poor teaching. As one superintendent said: "The change in organization of work from the one teacher to the departmental plant is too radical. The pupils need to feel their responsibility to some individual teacher. Lack of continuity of subjects from the grammar to the high school. The change is too great, the student being only three months older." Also, lack of adaptation of the course of study, too dogmatic and abstract teaching, misunderstanding between teacher and student, lack of sympathy in dealing with young people on the part of the teacher, lack of individual help outside the recitation period. In our large city high schools there may be promiscuous grouping of students without regard to either ability and progress or physiological age, lack of co-operation on the part of the home, bad companions, and lack of proper exercise.

Among the remedies suggested through the questionnaire are the following: "During each period of day have teachers to assist in preparation of lessons. Special emphasis and commendation for good attendance. Constant effort to awaken public sentiment by means of various educational meetings. Better understanding between teacher and student by private talks. A careful selection of courses of studies so that the students shall appreciate the real worth of their work. State course of study with a uniform transfer card. A delinquent manual training school for grades particularly. Grouping pupils according to ability and progress, particularly the first year class. Transfer pupils to lines of work which they are capable of doing. If pupils are doing all they are capable of promote regardless of grade. Interviews with parents, school regulation of all gymnastics and athletics, grouping the social life about the school in form of school socials, plays, etc."

Supt. Richey reports the following: "We have reduced the percentage of delinquents from 50 per cent. in the freshman class to less than six per cent.; in the sophmore class from 20 per cent. to 4 per cent.; in the junior class it has been reduced from 20 per cent. to 4 per cent.; and in the senior class from 15 per cent. to 1 per cent. It has been accomplished by (1) Simplifying the course of study; (2) Improving the teaching; (3) Insisting that the pupils have their work done each day before they are permitted to return to their homes."

In the training of wild animals one of the first requisites is a complete study of the nature, disposition, individual characteristics and environment of the animal to be trained. The first aim is to learn to know and understand the animal and to become his friend. It seems to me that this contains a very suggestive pedagogical lesson in our study of delinquency and retardation. Does it not seem equally essential in our training and education of boys and girls to make an equally complete study of the nature, disposition, individual characteristics, as well as the environment, of the boys and girls under our instruction.

It is obvious before there can be perfect adjustment between the student on the one hand and the course of study and methods of teaching on the other, the conditions which are to be met in each individual pupil must be known. Perfect adjustment of all pupils means the elimination of retardation. Such a condition of things undoubtedly approaches the ideal. But under our present, and only three-fourths complete system of education, failure in many cases is inevitable. Up to within very recent years our educational system consisted of only two departments—educational and adminstrative. Now, a number of States like Pennsylvania have added the department of Health Supervision. But as far as I know California alone now furnishes a complete system, by also making provision for Developmental Supervision. The recent law that was passed by her state legislature authorizes Boards of Education not only to provide for the physical examination of both teacher and pupil, but also "to adjust school activities to health and growth, need and development processes of pupils. To study mental retardation and deviation of pupils in the school. To organize a corps of educators, experts on physiology, hygiene, and practical psychology, who can skillfully diagnose defective growth and development, and take more intelligent steps to conserve children and youth."

Under our present system the high school teacher is laboring under a great disadvantage. He not only deals with the most critical period of all childhood, but in most cases knows practically nothing of the boys and girls when he meets them for the first time. Especially is this true in our large cities. From the standpoint of the teacher, the boy and girl when they enter the high school are as though they had no elementary school history other than a certain percentage mark in the 8th grade. Thus in dealing with them he is thrown entirely on his own experiences. This means that in many cases by the end of the first term the perplexing pupil has already become retarded and discouraged because of a misunderstanding between teacher and pupil.

How much easier it is to find one's way in a strange city with a good guide-book, or with previous information from an experienced friend! Just so for the High School Teacher. To deal with each individual pupil most effectively, he must be furnished with a guide-book containing the school history of each of the elementary grades for each pupil he is to instruct. Until this is furnished the average teacher cannot be held wholly responsible for his conscious or unconscious contribution to the class of delinquents and the retarded. He has no mile-posts to direct him, and with pupils of many cross-roads the chances for failure are almost equally as great as those for success. What is therefore needed, is not only a close correlation between the 8th grade and the high school but a complete physical, mental and moral history of each pupil during his progress through the elementary grades.

But who is to do this? Surely not the teacher alone. Just as the teacher needs the assistance on the medical and health side of the pupil, so he needs assistance on the physical and moral side of the pupil. And for a complete educational system like that in California there must be combined with the Health Supervision Department, a department for the Developmental Supervision.

Finally, we have seen that the problems of delinquency and retardation in our High Schools are exceedingly complex. The questionnaire has shown that the problems are almost as numerous and varied as the number of high schools themselves. It has also shown that specific records on this important subject are very few and incomplete; and that there is no state-wide unanimity of action in trying to study and obviate this gross defect in our educational system.

In conclusion, would it therefore not be advisable for this body to appoint a committee including the State high school inspectors, to begin a state-wide campaign, soliciting the aid of every High School Teacher and Principal, collecting data relative to the extent, causes and effective remedies of delinquency, retardation and elimination in our township, borough and city High Schools; and that a half day be set aside for the discussion of these subjects at the next annual meeting?

THURSDAY AFTERNOON.

THIS session was given over to the Science and Mathematics Section of the Department. Miss Jane Mathews, of the Northside High School, Pittsburgh, presided. Prof. Ben. G. Graham, of the Central High School, Pittsburgh, was secretary. Prof. Herbert Hawkes, of Columbia University, read the following paper on

UNIMPROVED OPPORTUNITIES IN MATHEMATICAL TEACHING.

Before the unimproved opportunities in mathematical teaching can be discussed intelligently it is necessary to point out certain opportunities which our profession affords. We can then pass judgment on their claims and perhaps the need of greater effort in certain directions. In my talk today I shall not take up specific types of mistakes which boys make in their mathematics in college, and which afford opportunity to criticism, of the way in which high school mathematics is presented. I shall not say that when a college examiner sets an exercise on the theory of exponents, for example, one of the kind which fairly bristles with negative exponents and parentheses, the boys get mixed up. Neither will I say that they make foolish mistakes in reducing complicated fractions to their simplest forms. Of course they do. We all do. I am not one of those who feel that all of the pedagogical wisdom is concentrated in teachers' colleges, and that it is their function to tell the high school teacher how it should all be done. The fact is rather the reverse. Speaking in the large of technical skill in presentation of mathematics to students there is no question in my mind that the high school teachers have more than their share of ability, enthusiasm and success. I propose rather to present two aspects of our opportunity as instructors, and to indicate directions in which it seems to me we should always aim to follow.

First, we have the subject of mathematics in and of itself, its meaning, its object as a field for instruction, and the interrelation of the various topics of which it consists. We might call these the domestic relations of our subject. Then there are the relations of mathematics to other subjects in the high school curriculum, as physics, and chemistry, and to the vocation subjects which the student may take up. These are the foreign relations.

Consider, first, some of the Domestic Relations. There can be no doubt that much of the difficulty and stumbling on the part of young students of mathematics is due to one or both of two very general causes. First, the symbolic character of the notation, and second the formal and abstract character of the definitions, postulates, laws and reasoning. You may say that this merely states in extended form that the difficulties *with* the subject are the difficulties *of* the subject. Nevertheless let us divide these difficulties in the manner I have suggested, and look for a few minutes at the difficulties due to the abstract notation.

For some years the feeling has been gaining ground that the most effective introduction to the subject of algebra lay through emphasis on the fact that the letters of algebra are merely the numbers of arithmetic with masks on so that the boy cannot see them face to face. They are really old friends who put on this sort of living costume in order to explore conveniently secrets which are under the surface of the mathematical ice. But they are to be treated as well, and no more feared than they were when they were seen to be the friendly numbers 1, 2, 3. We all know how difficult it is fully to convince the youth that these symbols are nothing but numbers with veils drawn before their faces. Even the most careful and pains-taking appeal to arithmetic

which is to be found in the first chapters of most elementary algebras now-a-days is not sufficient to establish perfect confidence in the symbols of algebra. And when the boys get to college they still feel that the symbols are something to juggle with.

To overcome this feeling that the symbols are meaningless, the six text-books of all epochs of mathematical instruction have made use of concrete problems in which distances, rates, times and areas are expressed by means of symbols and certain more or less artificial relations obtained. These problems are not presented with the idea that they solve any problem which the student has met or will ever meet in his vocation. They are merely concrete problems which bring home the exceedingly important lesson that the symbols of algebra really represent numbers, which in turn may be the measures of certain physical quantities.

But this appeal to the concrete is not enough. The personal experience of the pupil must be invoked, and problems must be set for which the student himself might actually find, or anyway imagine himself to find the data. Problems in mixtures, specific gravity, a few problems involving journeys of stage coaches, steamboats, automobiles, or aeroplanes according to the time in which the text was written.

I will not burden you with a recital of all the sins which have been committed in the name of the practical problem. If the student believed that all of the so-called practical problems are really so he would understand that the distances of the fixed stars are computed by means of a linear equation; that the census of school children of Chicago was taken by counting up those in New York and Pittsburgh and then using a formula; that a man would find out how many horses he has by counting up his cows, observing certain foolish relations and solving a quadratic. These problems are not practical, and no one thinks they are. They are concrete, and if used in moderation so as not to obscure the algebraic process which they are supposed to illustrate serve a proper purpose.

Now the first duty of the concrete problem seems to be that of illustrating and illuminating the meaning of algebraic symbols. The second duty, which is interlaced with the first, is that of correlating the various subjects of mathematical study more closely. At many points pertinent and natural relations between algebra and other branches should be emphasized. Even if the boy is in his first year in algebra certain facts from geometry and physics may be stated, and the algebra of these facts worked out with telling effect. And in geometry, use should be made of algebra on every reasonable occasion. The fundamental facts of trigonometry may well be introduced in connection with the work on similar triangles in geometry, and many bridges between analytical geometry and advanced algebra should be constructed. All of this tends to make the line of division between the subjects less sharp and formidable.

But it does not mean that algebra and geometry should be completely amalgamated or fused, as some of the exponents of the correlation movement call it,—confused, I should say. The type of imagination of reasoning, of mental atmosphere which is effective in geometry is quite different from that required in algebra, and both subjects would suffer from this fusion.

Let me add parenthetically that much of the consideration which this fusion movement has received is due to the repeated and insistent statements that in France, and particularly in Germany, where everything is supposed to be perfect, because it is so far away, the mathematical subjects of study in the schools are fused. It is true that in both of these countries the secondary course is called mathematics, rather than algebra, geometry and so on. It is also true that the same student may study mathematics five periods a week, two of which may be algebra, two plane geometry, and the other one perhaps trigonometry. They may run simultaneously, but there is little or no attempt to relate them even though they are carried on at the same time, and in many cases by the same instructor.

We may now state the first great opportunity which every teacher should make it his first business to improve. To acquaint the students with the content of the symbolic notation by constant appeal to concrete problems, and numerical illustration of literal expression; to express the ideas of algebra in geometrical language; the facts of geometry in algebraic form, and always to leave the impression that the notation is employed to express idea rather than that the ideas are forced into expression by the notation.

I remarked a few moments ago that even when the boys get to college they are too apt to have the feeling that the operations of mathematics are merely a juggling of symbols, and it is not at all difficult to shake their respect for algebraic reasoning. What teacher of mathematics has not been approached by some student with one of the many so-called demonstrations that $2 = 1$ with the statement that the mathematics of the processes is perfectly correct. When I went through one of these paradoxes to one of my classes, and asked then what the alleged demonstration showed them about the conditions under which certain mathematical processes might be performed, one youth replied, "It shows that your mathematics isn't true."

I think that we are in part to blame for this situation. When we teach, for example, the solution of the quadratic equation we show the students how to obtain certain numbers, the roots, and they are then interested and not unfrequently surprised to find that the numbers really satisfy the original equation. But if the nature of the operations on equations was comprehended this check of substitution—except in the series of irrational equations—would be regarded not as a test of the validity of the process, but merely as a means of finding out whether the process had been performed correctly.

For example, grant that the axioms regarding the operations which may be applied to each side of an equation have been illustrated,

and understood, and the solution of the quadratic is attempted. Each step follows the other without any question or doubt, and x is found. The fact is that x, in the equation $ax + bx + c = d$, is involved in an unfortunate complication, and it is our privilege to untangle the knots and display it in clear, straight-forward form. We have not found any number which was not there all the time. We have merely modified the form of the expression so that x is released. The same is true of Cardan's solution of the cubic equation.

I have gone into this unnecessary detail in order to make very clear the point I have in mind. In geometry I think that the students get a very definite impression of the logical and infallible method by means of which the theorems are demonstrated. But in algebra most of them never realize that there is any such thing. They do not have the same confidence in algebraic operations that they do in geometric procedure. I do not for a moment advocate making formal demonstrations of the validity of the algebraic method in the first year or two of algebra, but I do think that the fact that there is such a logical basis ought to be illustrated and emphasized so that the subject of algebra becomes not a jumble of arbitrary manipulations, but the working out of an infallible process of thought.

I wish now to say a few words about what I have called the foreign relations of mathematics, namely, of the extent and spirit in which our subject should be correlated with the non-mathematical subjects in the curriculum, and with problems which are really practical. All of the sciences and vocational subjects use arithmetic continually, and in what I have to say I shall not think of the utility of computations or the applications of arithmetic. I wish to state what seems to me the sensible attitude of the teachers of algebra, geometry and trigonometry to the problems of the physicist, the chemist, the teacher of shop work, and the various vocational topics.

How far should the ideas and language of these subjects be incorporated into our mathematical instruction? How far should the genuine practical problems be used? Every one knows that all of these subjects have been scoured from north to south in the attempt to find problems for algebras and geometries. And look at the results. I do not believe that there are five pages of distinct problems in the English language collected in this way which are effective for elementary instruction. This means two things. First, that where mathematics is applied to other subjects, the data are so involved with technical material that the problem in statement is usually four-fifths physics or chemistry, and one-fifth mathematics. It seems to me the height of folly for the teacher of mathematics to disturb the continuity of his work in order to introduce the terms and ideas which would make such problems intelligible. It also means that except for the most elementary mathematical work, the school boy does not apply many topics in mathematics to his chemistry and to his physics. It would surely be foolish to drag a class through involved and technical practical problems in physics which no one of them would ever use, and which are not well adapted for illustrative purposes, when we have at our command many excellent concrete problems which teach more mathematics, and place the students in a position so that they can with intelligence solve any practical problem which they are likely to meet.

Furthermore, if we try too hard to teach processes which the chemist or the statistician wants, we are certain to find that no two of them want this material presented in the same way, and they will have to do it after us, just as they have always done. And with less effect, for while we have been trying to teach them the specific method we have lost the opportunity of presenting something of vital importance from the mathematical point of view.

Our opportunity in our relations to other subjects, then, is to teach our own subject with constant use of concrete problems, but without undue strain that they shall be in any strict sense practical. And under no circumstances to yield to the pressure specifically to teach physics or carpentry, or chemistry in the courses in mathematics.

We should not attempt to amalgamate with physics or any other subjects. When the strong cable for the support of the great bridge is to be constructed, the metal is not all fused together into a solid rod. The cable consists of smaller parallel and distinct strands, each most carefully related to the others, so that no one bears more than its share of the strain, and all are kept taut and effective. To keep our subject bearing its share of the educational burden, in carefully planned correlation with other subjects of the curriculum, but not fused with them, is one of our important opportunities and duties.

This subject was further discussed by Mr. W. F. Long, of the Pittsburgh Central High School.

Dr. Jonathan T. Roher, of the department of mathematics, William Penn High School, Philadelphia, read the next paper on

PROFESSIONAL SOCIETIES, THEIR ADVANTAGE TO THE TEACHER.

There is a butcher in West Philadelphia who belongs to some seventeen lodges and societies from the Independent Order of Fat Fellows to the Ancient Order of Free and Accepted Husbands. He has "jined" about all of these excellent lodges. It is a very common occurrence for his chief assistant, his daughter Sally, to call out, "Pop, here's a postal, another funeral on Sunday for you," and when Sunday comes, Pop may be seen riding in a closed carriage, his square yard of chest covered with badges. Now some Educators and Professors, but not Teachers—and I am addressing *Teachers* this afternoon—are not unlike this good butcher in joining a multitude of societies, and on some occasions their vanity is also comparable with his. And then there is the cynical brother who belongs to no other society than the Ancient Order of the Faithful Signers of the Pay Roll. He

is not here to-day, for he never attends an educational meeting, but when we return he will greet us with, "Well, what did you get out of all that air? I knew better than to waste my time on such stuff as that."

It is singularly appropriate that a Philadelphia convention of Teachers should consider the subject of Teachers' Professional Societies. There are the American Philosophical Society, founded by Franklin in 1743, —the oldest learned society in America; the Academy of Natural Sciences founded in 1812, the oldest natural history society in America; the National Teachers' Association, founded in 1857, which afterward changed its name to the National Educational Association; the American Association for the Advancement of Science founded in 1848; and this Pennsylvania Teachers' Association founded in 1852. These societies, several of them of national scope, were all founded in Philadelphia. These facts, taken in connection with the early foundation of many of our educational institutions, and the priority of several of them in their respective fields, make Philadelphia in my opinion, not only the Cradle of Liberty, but also the Cradle of Liberal Culture.

There are now said to be in this country more than 500 distinct professional and learned societies. While we are now in session, the American Association for the Advancement of Science, composed of 11 sections, with 28 affiliated societies, representing a membership of more than 12,000, and an actual attendence of about 2000, is in session in Washington; a group of Natural History Societies with over 200 in attendence are in session at Princeton; and so there are meetings in this Convocation Week, as it has been called, in all the large centers of the country, a practical demonstration more potent than any argument of the practical value of these professional organizations; that thousands of teachers are meeting in convention for the advancement of the cause of education.

There are some characteristics of the teaching profession that make it more necessary for teachers to convene and discuss their problems than is the case with the other learned professions. I shall touch on three of these:

First, the teaching profession is a basic profession. Good teaching is the foundation of the training and part of the training of all the other professions. The future clergyman, the lawyer, the doctor, and all the rest must pass through our hands before they can earn their salt. So our problem is wider, greater, deeper, more far-reaching than that of any other profession. We generally begin our work earlier in life than the others and we feel our needs more keenly; so that the brotherly sympathy is strong and we must come together and ask help and give help to teach other.

Second, the teaching profession is the only one that I can call to mind where a member of the profession is unable to see his fellow-worker, working naturally and giving an absolutely true exhibition of his greatest skill and professional power. You doubt this, think it over. Let us see. The lawyer tries his case in the open; his fellow lawyer, even his opponent, can hear every word, can pattern after his good methods, can see and avoid his mistakes. The surgeon can perform the most difficult operation at a clinic surrounded by other physicians; it is quite usual especially for the leaders in the profession. The actor and the clergyman alike do their work in the open, or much of it at least, when their brothers of the cloth are near at hand; and so I might go on. But the teacher is different. So much of his practice is witnessed by his pupils only that when visitors come, he is another being. I know that many of you will claim that you have seen hundreds of teachers teach, and so you have; but ninety-nine of those teachers were *different teachers* the moment you entered the room; they were more reserved and cautious. Before you entered there were two chief thoughts in their minds, the subject matter and the class; after you entered, there were three—and you were the third. The class also reacts to your presence to a certain extent; some are stimulated to better results, some are scared into worse. These are psychological facts; every supervisor is aware of them and takes them into consideration. We may reduce them to a minimum, but they are there, and my point is this; while it was possible to see and hear Daniel Webster make his most eloquent plea, or to see Doctor Gross perform a wonderful operation down in the Jefferson Clinic, or hear Philips Brooks' most uplifting sermon down in Holy Trinity, it was never possible for any but his students to get the power and fulness of Mark Hopkins' lesson whether he was working on a log, or before his class at old Williams. This is an undoubted obstacle to the teaching profession.

Third, one of the finest opportunities of our profession is also the occasion of one of its weaknesses, a weakness that has maimed and wrecked many a promising teacher. I refer to our constant association with children and the immature. We are always in our work surrounded by the young. Unless we guard ourselves, we become childish and petty; we are apt to lack the vigor of mature men and women. If you don't believe this, watch the cartoons and the jokes in the dailies, most of which are centered about this weakness—another handicap of our profession.

Now to my mind, there is no better method of overcoming our weaknesses, and of receiving the stimulus that will energize us to great educational victories than identifying ourselves with one or more professional societies. I believe every teacher should belong to at least two societies,—one accenting the *teaching* of his subject, and the other the *subject matter*.

Let me consider first societies that are focusing their attention on teaching. I believe that the leaders are about agreed that theoretical pedagogy, such as was formerly taught in the normal schools, has been overmagnified; some go so far as to say it is altogether useless. The new pedagogy that the professional societies are establishing has a definite aim and definite methods; it proceeds

by observation and experiment. The aim is not merely good but more definite teaching—the good teaching of mathematics, still more definite, the teaching of algebra, better still, the teaching of the linear equation, when, how, and why do you teach it, and to whom. You will learn far more by attending the meeting of a live group of teachers of mathematics, and by participating in the discussion of these definite problems, than was possible by the old fashioned normal methods. There are now excellent societies that are thus carefully considering the teaching of all the subjects of our curriculum. If the average pay of our Pennsylvania teachers were not so low, I think those in authority would be justified in requiring every teacher to belong to at least one professional society. (According to Superintendent Schaeffer's last report, the average salary in Pennsylvania, exclusive of Philadelphia was, men $62.75; women $47.46. These figures are increases over the previous year of 85 and 50 cents, respectively.) As financial conditions are it is a great tribute to our teachers that they join the associations in such large numbers, frequently spending several weeks earnings in attending conventions such as this. In what other profession do you find such devotion?

Time will permit me to mention but a few of the recent improvements brought about by these associations, and to call to your attention one or two current investigations. In England, the society for the improvement of geometric teaching has practically banished Euclid's Elements from the schools, and in place of this heavy text-book—which was never intended for children but for mature men—it has introduced the modern treatment of geometry, with some emphasis on practical problems different in arrangement, different in view-point. The New England Association of Teachers of Mathematics has done much to make the College Entrance Requirements more reasonable. They have constructed a most excellent syllabus of geometry, which forms the basis of the recent provisional report of the National Committee of Fifteen. Our own Middle States Association has prepared an Algebra Syllabus which has received much favorable comment. It also publishes monthly the "Mathematics Teacher," the only journal published in this country devoted exclusively to the teaching of mathematics. This association is now engaged through its committees in making a careful study of the aims of teaching arithmetic, algebra and geometry, and on the proper content of each of these subjects for high school work. Some of the members are independently making studies which promise to be of great value. For instance, three methods are in general use for the factoring of the quadratic trinomial. A group of teachers of the Horace Mann School, by an ingenious scheme of eliminating personality, reached the conclusion which of these methods would produce the best results in the quickest time.

In physical science the problem seems to focus on two themes; the best sequence of the sciences and how to introduce the practical element. I observe that the consensus of opinion has removed physiography from the place it once generally held as the first year science of the high school, and has substituted a course in the general foundation principles of science, with emphasis on biology. There is also a tendency to question whether physics should be taught before chemistry; whether concentration on one or two sciences is not far better than a smattering of many; whether the quantitative laboratory work, introduced by Harvard, has not been carried to excess. In this line the watchword is the teaching of the science of every day affairs—the physics and the chemistry of the electric light and the trolley car from the moment the energy left the sun to the moment when it serves us in the modern invention. Or if it is the girl that we are training, we may only have time to trace that energy to the kitchen, and this is no small job. The modern tendency in teaching is, I believe, most difficult in science and requires the broadest thinking and the most careful discrimination. Why? Not that the material is not practical—what could be more so?—but rather from the complexity of the problem, and the great danger that this practical teaching will degenerate into a mere stuffing of the pupil with facts. We want to stand squarely on the platform that it is the business of the science and mathematics teacher to produce thinkers both of the deductive and constructive type.

These are facts that we must teach, but our emphasis must be on the process, on the reason, and the inter-relation of the facts. Our associations of science teachers are awake to these problems, and the teacher who now relies on his one year of college physics taken ten or twenty years ago to equip him to teach physics to-day is sadly mistaken in his calling.

Now, I want to allude to that class of professional associations which emphasize the subject-matter. The science teaching in our Philadelphia high schools is strong. In the respective schools, the science department is generally conceded to be one of the strongest departments of the school. Why? Because in these departments are teachers who—in addition to the best college and university training received in some cases 20 or 25 years ago—have kept themselves abreast of the leading co-workers in science, by active participation in the work of many of the leading learned societies in their respective fields.

So I would have every high school teacher belong to at least one society which has for its object the extension of knowledge in his individual field. The teacher must grow if he is to inspire growth; if he knows no more about his specialty this year than he did last, to be honest, he should ask for a reduction in salary. It is the coming in contact with the master minds that will stimulate the teacher, will relieve the monotony of the class room, and will inspire his best efforts with his own pupils. Even though he be able but to pick up the crumbs from his master's table, it is worth while.

Another very important aid that our associations render the teacher is the publication.

For me the spoken word is always more vitalizing than the written. Yet if we can't hear, let us by all means see. If we can't attend the Washington meetings and the Chicago conventions, we can read the proceedings.

The printed word has this advantage over the spoken, that we can reflect upon it; re-read and think it over more readily. The proceedings of the various professional meetings and the pedagogical magazines are generally accessible in the libraries, free of cost. What excuse but indifference can a teacher offer who does not read the journals?

I know of two Philadelphia science teachers who religiously spend two or three hours a week on science journals. These men are among the best science teachers in the country; their names command respect everywhere, and they could readily, if they so desired, obtain a place on the staff of any of the best universities. I believe their present high standing is due in very large measure to their fidelity in keeping up to date by reading the journals.

It may seem out of place to dwell on such points to you teachers. But let me tell you this: Within the last three years it has been my rather unpleasant duty to take part in the examination of candidates for teachers' positions in mathematics in the girls' high schools of Philadelphia. In that time we have examined about sixty candidates, with very rare exception college graduates having teaching experience of from one to ten years. I have almost uniformly asked these candidates whether they were members of any professional association; also, whether they were readers of any pedagogical or professional magazine. Rarely have I received an affirmative answer. In most cases the candidate is unable to name a single professional journal. This shows two things—first, lack of a proper intelligent interest on the part of young teachers, and second, a great lack of proper direction on the part of the colleges, universities and training schools.

Finally. Possibly the greatest advantage of professional societies is the social advantage. To converse with the gods, or even with the demi-gods; to attend the smokers and the receptions—are these merely vanity of vanities? From my experience and conversation with other teachers I have nearly always found that they shared the opinion that the social advantage was one of the great uplifting factors of the meetings.

What idea can you get of Holstead from his geometries, but one not altogether attractive? But meet him personally and note the charm and the power of the man. What idea can you get of Brashear from his lenses? Perfection of mechanical execution but not much more. But meet him personally and talk with him and you will soon realize why he has risen from a bench mechanic to the finest lens maker in the land, and the director of a great educational enterprise.

Instances will occur to all of you of teachers you have met, of words you have heard, of monographs you have read in connection with these professional associations, that have made deep impressions upon you, which have reacted to make you better men and women, and thus have given you the power to create better men and women as a result of your teaching.

At the close of this programme, the business session of the department was held, and the Science and Mathematics section held an adjourned meeting at the close of the session.

Principal C. C. Heyl, of Philadelphia, presented the following report as chairman of the committee on

COLLEGE ENTRANCE REQUIREMENTS.

To the High School Department: One year ago, during the sixth annual session of the High School Department of the Pennsylvania State Educational Association, at Harrisburg, your committee on College Entrance Requirements presented a brief report whose purpose was to develop recognition of the absolute necessity of united action on the part of high schools and high school supervisors on the question of college entrance requirements.

The fact of the existence of undesirable influences exerted upon high schools by college entrance requirements is well established. The presentation of evidence showing the common effects of such influences is now a trite matter in educational conferences such as this. The colleges themselves are well aware of the frequent protests made against certain of their requirements, and at various times they have given these protests the recognition of a defensive reply. But, withal, the secondary schools have gained little or no permanent ground by these discussions.

The time is now ripe for something more than protest. Action is needed, definite action, following a definite plan of procedure, with steady advance, with no step backward and no energy wasted.

At the outset it behooves the secondary schools to survey the forces and fortifications of the defenders of the citadel of higher education. One thing is clearly seen—the colleges stand together. Their entrance requirements are unified. The lines of this unification are laid down by the College Entrance Board. The College Entrance Board was originally the creature of a few of the stronger colleges. Subsequently it was recognized and adopted by a powerful and wealthy guardian. The Board's field of effort and influence widened greatly. Guided and backed by the subtle power of a great philanthropy, the College Entrance Board now dictates to the colleges some of the terms of their bondage to a great educational trust. Excepting sectarian institutions and those supported by public taxation, rare indeed is the college that can afford to maintain an existence independent of the Carnegie Foundation for the Advancement of Learning. Millions of dollars, in industrial securities, are in the hands of a self-perpetuating, corporate board, composed of business men, bankers and presidents of great universities. The fund thus established provides a beneficent retirement allowance for the members of the faculties of the colleges "accepted" by the Foundation. To be "ac-

cepted," a college must, among other things, comply with and enforce the rulings of the College Entrance Board. The College Entrance Board itself cannot afford to be at variance with the ideas held by the Foundation. And so. in the course of the "advancement of learning," the colleges have been gradually forced onward and upward, away from the secondary schools, leaving an ever-widening gap, to be bridged only by the strained efforts of the secondary schools.

With such subtle bonds is the whole college fabric knit together upon this question of standards. There exists only one principle of combat by which the secondary schools can make anv permanent impression on the college phalanx, namely, that of organized, united effort. To be in any way successful, this united effort must be made on behalf of a unified proposition, and must be directed not at any one point in the defenses but at the whole uneducational system that has been fostered and developed by the same kind of genius that accumulated the wealth upon which it rests. The original purpose of the Foundation was beneficent, but the present restrictions which accompany the administration of the benefits are distinctly the reverse. Even the colleges feel this, but cannot afford to protest. Show the colleges a strong and united, statewide secondary school system in Pennsylvania and they will, themselves, find the way to adapt their entrance requirements to the work of the secondary schools upon a sound educational basis.

Let the secondary schools of Pennsylvania freely meet the modern educational demand for simplification and unification in their courses. Let there be officially evolved a very few distinct types of secondary school courses in the state, each type unified in outline, and all planned to fulfil the legitimate purposes for which tne public money should properly be spent, giving preparation for efficient citizenship the preference over preparation for college. Let every secondary school in the state be conformed to one or more of the types best suited to the needs of its community. Then let the Public School System of the Commonwealth say officially to the colleges: "This is what we do in our high schools. It is what we ought to do. Adapt your requirements to our work. Let us build from the bottom up." The result would be inevitable. The colleges would find the way.

The campaign for unified strength should be begun in the High School Department of the Pennsylvania State Educational Association. Your committee respectfully requests your approval of the following simple preliminary plan, to be carried out under the official direction of the Department.

1. Send a circular letter of explanation to all superintendents and high school principals in the state, asking for brief statements of high school courses that would be considered ideal in meeting the needs of the special communities served by the schools to which the letter is sent. These statements should give broadly the number of years in the proposed course, the general subjects to be studied, the place of each subject in the suggested curriculum and the time allotted to it.

2. Collect the returns from the inquiry, compiling from them such general or composite curricula as might seem advisable, making a full report thereon to the Department.

3. Transmit a report from the Department to the State Board of Education, through the State Superintendent of Public Instruction, recommending the adoption of certain unified types of courses in the secondary schools of the state.

4. Keep the question alive until the end is attained.

Your Committee recommends that the Department take action extending the scope of the Committee's powers for the purpose of carrying on the work and providing reasonable financial means therefor.

Respectfully submitted,

Signed: P. M. Bullard, Wm. L. Smith, Charles S. Davis, Charles C. Heyl, *Chairman.*

A motion prevailed to change the title of this committee to that of "Committee on Curricula and College Entrance Requirements."

The Committee on Nominations reported the following named persons for the various offices of the department, and they were duly elected.

OFFICERS FOR NEXT YEAR.

President—A. E. Kraybill, Munhall.

Vice-President—Ben. C. Graham, Pittsburgh.

Secretary—J. F. Adams, Millersburg.

Treasurer—L. L. Hammond, Altoona.

Executive Committee—A. H. Welles, Scranton, Ex-officio; Charles S. Davis, Steelton; J. S. Hosterman, Montrose; J. D. Stark, Pittsburgh.

Member of Educational Council for three years—W. S. Steele, Harrisburg.

Member of Nominating Committee of General Association—J. F. Bower, McKeesport.

The Committee on Resolutions presented the following report which was adopted as read:

RESOLUTIONS.

Be it Resolved, That this body expresses its appreciation of the courtesies extended by the school authorities of the City of Philadelphia in granting the use of the Central High School auditorium for the meetings of the High School Department of the State Educational Association, and that we extend our thanks to President Robert Ellis Thompson for his excellent address of welcome, and to all who aided in the entertainment at our meetings.

Be it resolved, That this Department of the State Association heartily endorses the movement to elect a Field Secretary for the Association, believing that thereby a greater interest will be created among the teachers of the state in the profession of teaching.

Whereas, we believe that the elementary school, the High School, and the College are inseparably related parts of the Public School System of the State, and

Whereas, we believe that the opportunities of a High School education of the best quality should be conveniently accessible to every child completing the elementary grades; and

Whereas, the School Code makes provision for the training of teachers in the various colleges of the State for such High Schools; Therefore be it resolved by this Department,

First—That we heartily commend the Commission for requiring college graduates who are aiming to teach in high schools the successful completion of at least two hundred hours' work in pedagogical studies, such as psychology, ethics, logic, the history of education, school management, and methods of teaching.

Second—That we believe the qualifications of those offering such professional courses in colleges, should be carefully defined in the school laws of the State.

Third—That we earnestly recommend that the requirements in school management and methods of teaching be so construed as to include systematic courses of directed and supervised observation of expert teaching in both grammar and high school department, and a sufficient amount of successful practice in high school departments under expert supervision.

President Welles, in a few closing words, congratulating the members upon the work that had been done, declared the department adjourned.

GRADED SCHOOL DEPARTMENT.

THE Graded School Department meeting held in advance of the general assembly met on Tuesday, December 26, at 2 p. m., in the assembly room of the Girls' Normal School, Thirteenth and Spring Garden Streets. The room was well filled at the opening hour and a good attendance was maintained throughout the various sessions. The programme was interesting and practical. The chair was filled by Prof. George S. Machen, of Harrisburg.

The opening address was made by Dr. J. George Becht, Secretary of the State Board of Education, on the topic, "How may the Best Interests of the Bright Child and the Deficient Child be met in Graded Schools?"

BRIGHT PUPILS AND DULL PUPILS.

How may the interests of the bright child and the deficient child be best met in the grades?

This interrogation suggests a whole brood of very pertinent and interesting questions. What is the school doing to-day for the bright child, the one with special aptitude? Is it the part of wisdom to individualize instruction so that he may develop his powers and aptitudes without let or hindrance? Shall he be made a part of the school mechanism so as to serve as an uplift in a class of those who are not favored with a strong mentality? How shall we distinguish the several grades of deficient pupils? To what extent shall deficient pupils be classified with the average or brighter pupils? What is the effect of two or three dull or deficient pupils on the class group? Do they tend to pull the best down and thus lower the average? Or does such grouping have a tendency to pull the dull and deficient up and thus raise the average? Is a teacher justified in fitting her instruction always for the poorest member of the class? Is the time and energy she expends necessary to bring a few dull or deficient pupils up to a reasonably fair standard of efficiency warranted in view of the larger number of the group who will suffer loss by that teaching?

These are all questions closely related to the discussion and any one of them would furnish a wide field for differences of opinion. A part of our educational faith is our belief in democracy. But our interpretation of the term is not always fair. We think we are democratic only when we reach down to the lower levels of society. The demagogue smites his breast and says "I am a democrat socially because I mingle with and help to uplift the lower levels of society." But that is not the whole of democracy. Democracy provides for the best as well as the poorest. The truth of democracy is not written on one side of the shield only, but on both. Since society has its classes and stratifications, democracy lies in dealing with all classes and strata and in endeavoring to help lift each class and strata to its highest efficiency. To do that will require a large and wise measure of differentiation. We all appreciate the fine expression of the comparatively modern spirit of our civilization in behalf of the weak and imbecile children so well cared for in such institutions as Polk and Elwyn in our own state, and at Vineland, New Jersey. Reverently do we thank God for the men and women who are giving their lives to the service of the unfortunate ones that they may be made happy within the limitation of the life that is given to them. We honor and admire the teacher who has the patience and sympathy to deal with the dull, the slow, the deficient, the mentally warped derelicts. Still one must remember that the majority of these will not be leaders in the world's progress. At best many of them may be kept from being charges. Some of them can be lifted out a little and others will, with the best help, reach a bare mediocrity.

Leadership and efficiency will always be determined by the sane, the apt, the well balanced. If this be true, then the gifted ones should be so trained and given opportunities commensurate with their natural aptitudes and thus be made levers by which the whole plane of existence may be lifted to higher levels of intelligence, conduct, and happiness. The apt, the bright, the gifted pupil is not only entitled to our consideration as his right but because of the necessity for his leadership in the progressive movements of our civilization. In these later days we hear not little criticism of the public schools because they make no provision for the bright pupils. We are fairly well on in our studies and classification of the

abnormal and subnormal children but comparatively little has been done in the way of finding how many exceptional or gifted children are in our schools. We have assumed in a way that they could take care of themselves.

The first important thing to consider is the differentiation of the groups into smaller groups or special classes of those who are retarded. Pupils may be slow, dull or retarded for a great variety of reasons. They may be deaf or blind or partially so, backward, epileptic, or handicapped by reason of foreign tongue. Some pupils fail to keep up because of late entering or loss of time due to temporary illness or chronic maladies not yet severe enough to keep them out altogether. These must receive consideration and the first great difficulty lies in classifying the types. Defective is such a tremendous broad term. Still this is the point of departure. A proper diagnosis of the case is the very first consideration. And in making that diagnosis teacher, parent, physician, psychologist are each and all important factors.

Assuming now that a child is behind or below grade or "over age" or "backward," what are some of the things that ought to be known concerning him in order to give him the proper treatment? First of all his personal history and his relation to home life will usually give great light on the subject. What are the conditions of his home life? Does he live with his natural or foster parents? What schools has he attended. Was he regular or irregular in his attendance, and if irregular, why? What are his class deficiencies? Are they the result of lack of application, change from one school to another, illness or untoward home conditions? Is he dull, lacking in talent? May his present condition be the consequence of former illness? What diseases has he had? Brain troubles? Accidents? Scarlet fever? Rickets, etc.? What, if any, are the present signs of physical degeneracy? What special sense organs are affected? Are there glandular swellings, muscular twitchings, or malformations of any kind? What kind of temperament does he have? Is he moody, dull, violent, shy, lazy, imaginative, social or unsocial, truthful or untruthful? Has he any aptitude in any direction either in school subjects or work outside of school?

With information on these points fully in hand we may at least suggest a course of treatment or method of procedure.

I have in mind three cases of exceptional or limited or subnormal children. They are the real flesh and blood and their cases seem to present the typical conditions that every teacher and superintendent must meet in dealing with these deficient ones. The first child has fair average mental power. On account of frequent removals from place to place with his parents he lost standing. During several years he did not get started at the beginning of the term because of illness. Owing to removals and irregularities due to illness he was below grade at least two years in most subjects. His irregular school life induced habits of inattention and careless attitudes in class and in general toward his school work. The treatment in his case was this. He was allowed to take the two subjects in which he could keep up with the advanced grade. In the other subjects he had individual instruction with several others who formed a special class in that school. In less than two years he was in his standard age-grades.

The second child has a fairly good physical make-up but has a slow, dull, plodding, colorless mental life. The traditional subject-matter of the school does not appeal to him. He makes little or no response. His mind has little capacity and lacks vitality, yet he is not imbecile or feeble-minded but very close to the border. This is altogether the most difficult case to deal with because parents cannot be made to understand. One may convince them of the "feeblemindedness" incorrigibility, idiocy, or other pronounced pathological or neurotic deficiencies of their children but he is a "devinely marked" genius who can make clear the difficulties that stand in the way of promoting or advancing the intellectual life of the "near defective." This child needs not only special instruction but needs to follow a course of study in line with his future needs and mental limitations. No amount of special instruction will keep such a child in the grades for any length of time if he must follow the regular course. In special classes with provisional courses he may be cared for. He may have some slight aptitude and making that the point of departure, the school may help him realize something in the way of intellectual satisfaction out of his meager mental equipment. He ought to be kept within the school influence and environment as long as the school can do even a little for him.

There is a third type with which I am familiar. Mentally defective yet with a kind of native shrewdness. He has a good body but no amount of teaching, individual, special or collective will ever develop any degree of book learning. He will never learn to work problems or care to read history or anything else. He can work at manual labor, gives reasonably good service, enjoys getting the pay for his work and knows how to count it. He has capacity enough to become self-supporting. How far shall we insist on such a one remaining in the school at all, say, after the age of fourteen or fifteen? To provide him with some useful light employment is of infinitely more worth than to keep him in school dragging out a monotonous and futile existence. This again is a question for school or municipal administration.

The method of administration for getting all this special work done presents, of course, a large and transcendently important question.

There is the Batavia plan which provides two teachers for every room—one to conduct the recitations, the other to give proper help to backward pupils. This method has the backing of a host of enthusiastic followers. Because of the widespread discussion that has followed its introduction in modified forms in various places its operation needs no further discussion here.

The best summary treatment of this whole

subject of backward or deficient children is in the little volume entitled "Auxiliary Education" by Dr. B. Maennel. It refers especially to the Auxiliary schools of Germany though a chapter is devoted to the education of exceptional children in the United States.

In quite a number of the cities of this country auxiliary or special schools are maintained. In certain buildings or centers "below grade" the pupils are segregated. Here they get special instruction in the subjects in which they are deficient.

So far little has been done for the bright or gifted pupil. Educational literature reports very few experiments showing what has been accomplished in this direction. There is a definite movement on foot, however, in many places to provide preparatory schools for the bright pupils. If they are strong in sixth, seventh or eighth grade work, they may take up extra high school studies while doing the regular work of the elementary schools. The results seem to justify such an arrangement. It seems only fair to give bright pupils this opportunity. Supt. Van Sickle who has given the subject considerable attention and has worked it out in some detail in Baltimore says: "Judging by the energy and enthusiasm that these selected pupils put into their work and the marked success which they have so far attained as measured by school standards we are quite certain that they will display somewhat more of energy and efficiency in whatever field of life effort they enter than if during their school days they had become contented with a lower level of effort and attainment.

The discussion was taken up by Miss Margaret Maguire, principal of the Wharton Combined School of Philadelphia, who advocated the segregation of all children who are above or below normal, stating that to herd students of all types together is detrimental to the bright as well as to the average, and that the backward child, left in a class of mental superiors, retards the progress of all. The bright child should be given special thought, should be segregated so that he will not waste so much time but can be given deeper, finer, more inspiring truths that will develop greater power.

The general discussion was participated in by a number of the teachers present.

The second topic on the programme was "Grade Promotion during the Year. When? and How Often?" In his address Supt. J. M. Coughlin, of Wilkes-Barre, made a plea for a return to some of the individualization of the country school and said that the child of the ungraded village school has the advantage over the pupils of the graded city school where he is an indeterminate factor. He deplored the system which transfers a child from one teacher to another for various topics, and said that contact in the ungraded schoolroom does much to train the lower grade child to appreciate the difficulties of upper grade work when it comes.

In his discussion of the topic Prof. R. M. McNeal, of the State Department of Public Instruction, said that grade classification is a necessity for three reasons: In order the better to present the subject-matter; to give ability for the work of the following grade; and to secure better discipline. He advocated promotion but once a year, thus giving the child time to thoroughly master the subject and to better enable him to do the work of the next grade.

Some of the thoughts brought out in the general discussion were that education demands time. Too much advancement cripples the child because he is not given time to develop power.

The school work should be made more definite. More specific directions and a more definite course of study for the teacher will make her happier and will enable her to get better results; will lessen the cry of overwork and retardation of pupils.

Supt. John W. Carr, of Bayonne, N. J., gave an interesting and instructive talk on the subject of "Effective Moral Training in the School." The address was not written and we do not have a copy of it for publication.

WEDNESDAY MORNING.

THE first subject on the programme was "An Outlook in Elementary Schools," which was ably discussed by Deputy Supt. Reed B. Teitrick. He was followed by Dr. Myron T. Scudder, principal of Froebel Collegiate and Normal Institute, of New York City, upon the

IMPORTANCE OF UNDERSTANDING A CHILD'S OUT-OF-SCHOOL ENVIRONMENT.

Because of changing social and industrial conditions, because of the influence exerted by the newer schools of biology and psychology, and because of the free exchange of ideas between educators of all civilized countries, our views as to what constitutes adequate schooling for twentieth century children has undergone radical changes, and even now is in process of rapid evolution. The old-time conception of a school as a place merely for mental training and for learning the rudiments has given way to the idea that to properly educate a child you must put the whole child in school, and that the school must in increasing measure fill many of the functions which formerly belonged to home, church, shop and farm, besides including some functions which never before were considered as at all essential or even incidental to a child's schooling.

Education might have been defined once as the art of teaching a child to read, write and cipher. Contrast this ideal with Huxley's, as expressed in his statement that education is

the "Fashioning of the will into a loving and earnest desire to move in obedience of the laws of nature": or contrast it with any other of the accepted modern definitions of education and the difference between the old and the new will be more fully appreciated.

The persistent progress of democracy (democratic ideals) has altered children's minds and dispositions as well as those of adults, and has introduced new elements into the problems of discipline and of moral and civic training. The social environment furnishes many temptations, pitfalls and destructive agencies which tend constantly to weaken or destroy character and efficiency. These must be understood and minimized if not entirely neutralized, and of course it is necessary to know something of the extent to which each child is exposed to these.

The problems of self-support and of home-building are becoming increasingly difficult. It is said that out of the fifteen million families in the United States twelve million live on an income of less than $500. Many must get along on an income of not more than 50 cents a day. Such conditions suggest the importance of organizing and establishing adequate courses of study.

The matter of passing leisure hours profitably, of proper recreation, becomes more serious as the 8- and 10-hour day affects increasing numbers of our population and brings added responsibility on the schools. How children amuse themselves out of school and during vacations, and how parents and friends pass their leisure hours, is a matter of considerable importance to the teachers of these children.

Under the conditions suggested above, the care and training of children is not so simple a matter as some used to think. More and more do we realize that the child is an exceedingly complex being, living in an exceedingly complex environment. To properly teach, control and train this child is a most difficult art and requires the most careful preparation. How easy to fall short of producing an efficient character! How easily harm may be done! No one should be allowed to go into child-training unless specially qualified. If one were called upon to run an intricate machine he would refuse to touch it until he had mastered its details and been shown how to start, stop, repair and clean it. But child nature is more intricate than any machine that can ever be devised. The causes of a child's deeds, the roots of his ideas, the tendencies of his disposition are far removed from view. Far more essential is it for a parent or teacher to understand the child than for the operator to understand his machine.

Few of the children we teach are well known to us, yet on our ability to adjust our efforts to their needs will depend to some extent their physical, mental and moral welfare. Teachers must be constantly asking such questions as these: What are this pupil's greatest needs? Are these needs ministered to by this school? What are this pupil's greatest possibilities? Is the school enabling him to realize them? Yet how can we give intelligent answers to these questions unless we know the pupil well? We must realize that positive injury may attend the school life of misunderstood children and of children whose out-of-school life is not known, and that many do not reach the possibilities of which they are capable because more is not known of their individual characteristics and needs. How can we warn effectively? How can we effectively teach the consequences of wrong-doing? How can we give positive instruction and training in right thinking and doing if we do not know the nature of a child's life out of school? The knowledge a teacher gains of a child's nature and needs by merely seeing him in school is very one-sided and inadequate. The teacher must see the child as the parents see him, as his former teachers know him, as other people know him, as he himself reveals himself through his out of school activities. Only a part of the real boy is at school and that part is usually a very small one. Lacking adequate information teachers are often very wrong in their dealing with a child, make fearful mistakes that do great wrong to the child if indeed they do not permanently injure or entirely ruin.

Some of these children fall short of their possibilities, some become industrially and domestically inefficient, some drift into lives of vice, because something is lacking in their environment which might be supplied if we only knew what was needed, or because of some physical trait or defect which has not been duly taken into account, or because they have not been treated in accordance with their natures, or perhaps because they have been led off by depraved adults.

Think of the fathers and mothers that are to be prepared for the 15 million homes of the country: should not the school aim to give them definite training for their responsibilities as home builders?

For another instance, think of the tens of thousands of girls now in our grades who in the near future are to swell the ranks of fallen women, driven thither by the struggle for subsistence, by the quest for recreation, by the perfidy of double their number of fallen men! Has the school no responsibility with respect to this situation? Can not courses of study be devised which will raise their earning power? Cannot more be done for wholesome recreation? Then there is the power of the right word spoken by the right person at the right time! But all this means an acquaintance with the out of school environment which few teachers possess or seem to care to possess, and it means a very radical readjustment of the school system so that the vocational features shall be adequate. Practical courses of study, abundant recreation, vocation bureaus and advisers, sex instruction, moral and religious instruction would do much to prevent such a wholesale slaughter of manhood and womanhood.

These and other considerations which readily occur to everyone show that it is more necessary than ever that teachers should proceed systematically to get acquainted with the entire environment of each pupil as far as that is

possible. Everywhere we hear the word Survey. To survey the environment of school children is just as important as to make the survey of workmen in mining districts, or of dwellers in rural communities. Teachers should be trained investigators. A simple way to begin is by the use of enquiry blanks as shown below. These of course are supplemented by careful observation, psychological analysis, social contact with the children out of school, visits at their homes, use of the telephone, correspondence by mail, social functions at the school, parents' meetings, and carefully prepared reports. In many cases in the large cities important help may be obtained from social workers, charity organizations and even the police.

(The blanks referred to are not in duplicate just now. One is a questionnaire to previous teachers of a child, another is a questionnaire for the parents to fill out while a third is for the pupil himself. A model is also given of a detailed report to be sent occasionally to the parents. The physical condition of the child is recorded on an appropriate blank.)

Miss Louise Stevens Bryant, head social worker, Psychological Clinic of Pennsylvania University, continued the discussion on importance of understanding a child's out-of-school environment. She was followed by Mrs. Edwin C. Grace on the "Community Use of the School." We do not have reports or abstracts of either of these addresses.

Dr. Nathan C. Schaeffer, Superintendent of Public Instruction, made the last address of the morning on the "Teaching of Pennsylvania History." He said the Pennsylvania public schools afford equal opportunities to every boy and girl, no matter whether they be born across the Atlantic or on American soil. Look at the great Abbey paintings in the State Capitol at Harrisburg. They glorify the men of Pennsylvania, yet many of these men's names are as yet unknown to the pupils or teachers of the public schools in the state. That is something which Pennsylvania history correctly taught will do away with. He raised the question whether the addition of Pennsylvania state history to the already overcrowded curriculum of the public schools is not crowding the child, and answered it by saying that the State history can be taught with national history at no other expense than a few books on the subject for each teacher's desk. You cannot teach the history of the nation without teaching Pennsylvania history because Valley Forge and the battles of Brandywine, Germantown, and Gettysburg are all parts of Pennsylvania history as well as national. Lay more stress on the industries of our own state. We do not appreciate the great things that have happened in it.

THURSDAY AFTERNOON.

THE meeting was called to order by President Machen at 2 o'clock. The first subject of the afternoon was "What the New Education Brings to the Elementary Schools." The discussion was opened by Mrs. H. G. Carmalt, instructor in elementary methods, School of Education, University of Pittsburgh. She stated four principles in the new education, as follows: 1. Definition: Education is the reconstruction of experience, giving it a more socialized value through the medium of increased efficiency. 2. Motivation. 3. Recapitulatory experiences. 4. Four stages of child development: First six years, savage stage; six to ten years, barbarous stage; ten to fourteen, semi-civilized stage; fourteen to twenty, civilized stage.

Dr. W. G. Chambers, of the University of Pittsburgh, in an address said that education is a training of instincts. Each child is a bundle of instincts, every instinct craving expression, and in dealing with the child real problems must be used, problems growing out of the child's own experience.

The "Certification of Teachers under the New Code" was the next subject. It was discussed by Supt. Thomas C. Cole, of Chester, and Associate Supt. George Wheeler, of Philadelphia. We have no report of what was said by these gentlemen.

Dr. D. J. Waller, Jr., principal of the Bloomsburg State Normal School, followed with the last paper of the sessions, in answer to the questions

IS THE PRESENT TENDENCY IN FAVOR OF OVERPRESSURE IN ADVANCEMENT? IF SO WHERE IS THE MEDIUM LINE?

A few months ago at a banquet in the national capitol, President Taft and Speaker Clark of the House of Representatives, in discussing our educational institutions, emphasized the startling fact that a large proportion of the candidates for West Point and Annapolis from our public schools are rejected for the want of the elements of an education. Possibly the question assigned for this paper was prompted by the caustic criticism. At any rate, the topic indicates the interesting swing of the educational pendulum in twenty years, as we have seen it upon other subjects, for example, mental arithmetic, the multiplication table, spelling books, and grammatical analysis by diagrams. For a score of years ago educators began to ask, Are not pupils unduly retarded? and this question has held its place as one of the most important in the annual meetings of the N. E. A. and in the Reports of the U. S. Commissioner of Education. Though it is chiefly a question of administration, though it deals with the how, the when and the why rather than with the "what," yet college presidents as well as school

principals and superintendents have presumed to settle it and it is interesting to note that not Butler, nor Eliot, nor Harper, nor Schurman, nor Thwing trusts the teacher to promote pupils. Not a State Superintendent trusts her, in the replies given to the questions of the Committee of Fifteen on Elementary Education in 1895. Yet in the total vote upon the question "Who shall promote the child?" the teacher received a handsome majority, which suggests that those farthest from the children may be dominated in their views by the system rather than by consideration of the children, and that it is important to consider the point of view, as well as the reputations, of those whose opinions are offered. It also suggests the ever-present danger of sacrificing the children to the system in administration.

If there be a tendency toward a too rapid promotion of pupils, is it because that work is more and more coming into the hands of the teachers? When it was chiefly in the hands of the Superintendents the tendency was toward the retardation of pupils, because necessarily examinations were chiefly relied upon, and the system worked most smoothly when exceptions were not allowed, and when the "personal equation" was eliminated. Does promotion of pupils by teachers, those who know them best, advance them too rapidly?

There is a fear, it is true, that the teacher in the next higher grade may form an unfavorable opinion of the teaching that was done, when a child is advanced too rapidly. There is also a natural desire to continue to teach the apt children, making a teacher loath to part with them.

There is an unwillingness to have a child's interest destroyed by premature promotion, and by holding back possible candidates, fear or failure to be promoted is used as a stimulus to study.

But these do not tend in the direction indicated by the inquiry. There remains, to balance against these, the desire of the teacher to please and to win reputation by promoting a large class. In striking a balance who shall say that there is a tendency toward too rapid promotion? But all these suggestions are derogatory to the teacher because the motives are selfish. In speaking upon this subject a former superintendent said, "After all I never found my teachers actuated by any other motives than the desire to promote the welfare of the children." This doubtless is the truth regarding nearly all teachers. They have acquired a personal interest in the members of the class, humanity dominates selfishness on the one hand and undue regard for system on the other.

Possibly, the fear suggested by the question in hand was aroused because of a distrust of the teacher in the performance of this duty. It will be a sad day when this distrust permeates the community. Teachers must be selected with all possible care and then they must be trusted if they are to possess that self-respect without which no one can do his best. Responsibility must be laid upon them, and confidence reposed, in all duties properly belonging to them, if we are to preserve democracy as opposed to imperialism in education—the American principle, life in teaching as against the dead grind of system. Furthermore, the body of teachers in the land was never as worthy of trust as it is to-day. If any are found to be unreliable it is the first duty of the Superintendent to see that such are eliminated.

Another of the tendencies of the day is that toward greater frequency in the promoting of pupils, or promoting at shorter intervals. This practice was introduced into the schools of St. Louis by Hon. Wm. T. Harris when city superintendent. As United States Commissioner of Education he issued a circular of information in 1891 recommending half-yearly promotions excepting in grades one and two, and in these more frequently. In 1894 he inquired of city superintendents whether the system of annual promotions then in vogue did not unduly retard the bright pupils and whether promotions at shorter intervals were not preferable. Less than 15 per cent. of more than four hundred who replied favored the long period, yet in 1898 two-thirds of the cities reporting promoted but once a year. The subject was vigorously presented in the Educational Review for September, 1905, by Charles T. Hartwell, of the Boys' High School of Brooklyn, N. Y., and the subsequent action of the metropolis gave an impetus toward shorter periods throughout the country. Practice has been steadily advancing toward theory. It has often been remarked that the result of annual promotions for the highest third of the class is success without effort and for the lowest third effort without success. The tendency where the intervals are short and there is a doubt of the pupil's proficiency is to hold him for a better understanding of the subject because the next opportunity for advancement will not be very far away. We may dismiss the fear that this tendency is toward "over-pressure in advancement," or superficiality.

Another tendency closely allied with this, is against the skipping of grades in the promotion of bright pupils. It has resulted in the adoption of effective methods various and very interesting, some of them ingenious, but too numerous to be here discussed in detail. They may be summarized under the thirteen heads of the Brooklyn Teachers' Association, as 1. The Cambridge plan, 2. Elizabeth plan, 3. Pueblo plan, 4. Batavia plan, 5. Departmental teaching, 6. Group teaching, 7. Pre-academic school, 8. Extension classes, 9. Special classes for over-age or foreign born children, 10. Ungraded classes, 11. Promotion by points—the New York plan, 12. Chicago plan, 13. North Denver plan.

They are thirteen witnesses to the effect that the present tendency throughout the length and breadth of the Union is against "over-pressure in advancement." Many of these plans are described in the Report of the N. E. A. for 1898 by the Agent of the Massachusetts Board of Education, Dr. John T. Prince. His article will interest any one seeking help upon this subject.

A third tendency of the day is to distrust

promotion made upon the basis of examinations alone. In Toronto we have been told by Supt. Hughes that five considerations are combined in arriving at a decision, viz., results of examination, age of the pupil, health of the pupil, length of time in the grade and the pupil's capacity for the new work. The last is the controlling consideration toward which the other four contribute. Whatever aids the teacher to determine the pupil's capacity for the new work should be considered and much is to be found outside of examination papers. Can it be that the tendency not to rely alone upon examination papers has awakened the fear implied in the question under discussion?

There is a general agreement also that the effort to bring about promotions by individual work rather than by class work has not yielded the best results; the tendency is toward class work because it is found that the rivalry, the broader view obtained, the enthusiasm, all combine in giving a better result.

Upon another point the tendency is now all in one direction. It is no longer believed that a student should be promoted only after he has mastered all the studies in his grade. This was the accepted principle of promotion until Dr. Wm. T. Harris attacked it, and it prevailed widely until the evils of the scheme burned themselves in upon the soul of Charles S. Hartwell of the Boys' High School of Brooklyn, in February, 1905, and what is now Greater New York broke away from it. Now "there is none so poor to do it reverence." It is agreed that those studies that are the instruments of work, the three R's, must be successfully pursued as a condition of promotion, but it is no longer possible to hold back a student and require him to go over again the work of a year because he has fallen short in Drawing, or in History or in Physiology. Even when the deficiency is in Mathematics the accepted view is that the difficulty can be met in a better way.

This was considered "over-pressure in advancement," twenty years ago, but is unanimously defended to-day.

In Cambridge, Mass., 8 per cent. completed a given course in four years, 33 per cent. in five, 49 per cent. in six, and 10 per cent. in seven or more. About half needed six years, 8 per cent. would have been cultivating bad habits for two years had they been held to the same schedule, and 33 per cent. would have lost one year of time and much enthusiasm, to say nothing of the temptation that Satan has for idle hands. In Woburn, Mass., where promotions are made at intervals of half a year, out of 145 pupils, three finished nine grades in six years, ten in seven years, thirty-three in eight years, and ninety-nine in nine or ten years.

At the N. E. A. Superintendents' Chattanooga meeting in 1898 Supt. Prince expressed the belief, "That so much must be gone over by each pupil with equal thoroughness in the same time, is the bane of our system."

Some things may be regarded as settled as the result of the energetic and intelligent effort of twenty years:

1. Yearly promotions are not best.

2. Promotion only after *all* the studies have been mastered is not best.

3. Promotions involving the actual skipping of any material part of the course are not best.

4. Promotions by Superintendents are not best.

5. Promotions by examinations alone are not best.

6. The primary aim should be to secure a mastery of the three R's as instruments of work.

No one can study the discussion of the period and observe the results that have been obtained in the light of these discusions without arriving at the firm conviction that there is no tendency in the best educational practice toward "over-pressure in promotions," and that the medium line is to be found by avoiding the mistakes that have come to be recognized as such by the great majority of thoughtful educators.

Dr. C. H. Keyes, in a district enrolling 5000 pupils, in a very recent and exhaustive study of acceleration and arrest, entitled Progress through the Grades of City Schools, published by the Teachers' College of Columbia University, arrives at conclusions in harmony with these views. In discussing the Binet-Simon Measuring Scale for Intelligence Dr. Leonard P. Ayres shows that of 14,762 children in 28 American cities, there were in the several grades almost exactly as many accelerates, or those ahead of the normal pupils, as there were retarded ones.

In conclusion, it may be gratifying to Pennsylvanians that whatever has happened to candidates from other States, at a recent competitive examination of candidates for West Point and Annapolis, provided for by Hon. John G. McHenry, M.C., in the XVI Congressional District, there was no second call and the successful candidates came from the public schools.

The committee on resolutions made their report which was adopted as follows:

RESOLUTIONS.

In order to show our appreciation of the professional and practical work of the efficient committee of the Graded School Department under the leadership of Prof. Geo. S. Machen, of Harrisburg:

Resolved, That we are deeply indebted to the speakers who presented papers and discussed their contents, and for their very able, practical and timely suggestions regarding the work of this department.

That we emphatically endorse the feeling and tendency manifested so clearly in these papers and discussions that the present courses of study should be so revised as to meet the needs of the child rather than conform to the obsolete traditional courses.

That we also heartily approve of another equally important proposition emphasized at these meetings, namely, that the advancing of pupils from a lower to a higher grade upon any other ground than fitness is not in accord with good pedagogy or good common sense.

Signed: Wm. L. Balentine, Philadelphia; B.

F. Heiges, Manheim; Mary B. Collins, Monongahela City.

The committee on nominations reported as officers of the Graded School Department for 1912 the following:

President—George S. Machen, Harrisburg.
Vice Pres.—H. E. Gehman, Ephrata.
Secretary—Etta M. Work, Charleroi.
Executive Committee—C. J. Walter, Philadelphia.

Their report was approved and the officers named duly elected, after which the department adjourned.

REPORT OF TREASURER KECK.

This report could not be prepared in time for the January number, partly owing to the illness of Prof. Keck, but more to the fact that all the necessary figures had not yet reached him—for had these been in his hands he would probably have driven it through before going to bed. It is as follows:

To the Officers and Members of the Pennsylvania State Educational Association:

I have the honor to submit the following financial report of the Philadelphia meeting.

This was the first meeting since 1886 that a car was sent to headquarters to convey the President and the Treasurer to the place of meeting. Our thanks are due to Dr. Flounder.

President Robbins deserves special mention for creating interest and securing the largest enrollment in the history of the Association. I wish I could state that this large enrollment contained the name of every Normal School Principal, of every County Superintendent and of every City and Borough Superintendent, of the state but they did not make it possible for me to do so. I find that six of the Principals, twenty-three of the County Superintendents and twenty-eight of the City, Borough and Township Superintendents do not have their names on the list. I also find that six counties have not a single enrollment.

My thanks are extended for lists of names sent by the following educators: C. W. Eisenhard, Allentown, 3 names; Ida M. Lind, Lancaster, 3; H. J. Wightman, Ardmore 3; Emma S. Brimmer, Lancaster, 4; P. M. Harbold, Lancaster, 4; M. J. Wertman, Shimersville, 4; E. S. Ling, Lock Haven, 6; H. E. Winner, Pittsburgh, 6; Otis S. Rothenberger, Leesport, 6; H. J. Reinhard, Catasauqua, 7; Frank Shibley, Lancaster, 7; H. W. Dodd, Columbia, 8; Andrew Thos. Smith, Mansfield, 9; John Hetrick, New Kingston, 9; Helen W. Anstice, Philadelphia, 10; J. L. Eisenberg, Royersford, 10; J. H. Yerger, Emaus, 10; T. A. Stetler, Middleburg, 11; Clarissa A. Moffet, Pittsburgh, 11; Louise D. Baggs, Bristol, 14; Carmon Ross, Doylestown, 15; Chas. S. Foos, Reading, 16; R. E. Laramy, Phoenixville, 16; H. S. Fleck, Tyrone, 19; J. H. Alleman, DuBois, 20; Geo. S. Machen, Harrisburg, 21; Wm. G. Cleaver, Elkins Park, 23; W. A. Wilson, Milton, 24; J. D. Arnold, Norristown, 24; A. G. C. Smith, Media, 30; W. T. Gordon, Coatesville, 34; J. H. Landis, Norristown, 42; Chas. Lose, Williamsport, 44; F. W. Robbins, Lebanon, 45; Wm. C. Sampson, Bethlehem, 48; G. B. Milnor, Muncy, 50; T. G. McCleary, Washington, 57; Chas. E. Clifton, Easton, 75; Abel J. Evans, Philadelphia, 75; J. H. Hoffman, Doylestown, 75; Jno. W. Snoke, Lebanon, 130; H. H. Baish, Altoona, 132; F. E. Downes, Harrisburg, 158; F. W. Wright, Uniontown, 214; Geo. W. Flounders, Philadelphia, 962.

The following is the enrollment by counties: Adams 3, Allegheny 99, Armstrong 1, Beaver 4, Berks 65, Blair 160, Bradford 2, Bucks 116, Cambria 12, Cameron 2, Carbon 10, Centre 6, Chester 63, Clarion 2, Clearfield 22, Clinton 14, Columbia 8, Crawford 5, Cumberland 12, Dauphin 189, Delaware 63, Elk 6, Erie 6, Fayette 12, Franklin 4, Greene 1, Huntingdon 7, Indiana 1, Jefferson 6, Juniata 2, Lackawanna 9, Lancaster 56, Lawrence 3, Lebanon 185, Lehigh 36, Luzerne 23, Lycoming 104, McKean 5, Mercer 7, Mifflin 11, Monroe 3, Montgomery 128, Montour 2, Northampton 145, Northumberland 30, Perry 1, Philadelphia 1063, Potter 2, Schuylkill 12, Snyder 11, Somerset 2, Susquehanna 3, Tioga 18, Union 6, Venango 5, Warren 4, Washington 66, Wayne 4, Westmoreland 18, Wyoming 2, York 4, Other States 16.

The following is the financial account:

5 Life Membership fees....$	50.00	
2887 Names less 38 Life Members	2849.00	$2899.00
28 Bills paid to date.....		1302.33
Balance on hand *now*..		$1596.67

I know of three more bills that are to be paid. I *estimate* their amount at $1150.

Since it is desirable to have the names of those who enroll, correct on the list, I would suggest that when names are sent in for enrollment, they be written plainly.

Respectfully submitted,
Kutztown, Pa., Feb. 3, 1912. David S. Keck, Treasurer.

The Executive Committee, after discussion of the matter, notified the officers of the several departments and round tables that they should each furnish a report of proceedings and papers read, for publication in *The School Journal* and in the usual pamphlet form—these to be sent to the Secretary of the Association as soon after adjournment as would be convenient to the said officers. Reports have been presented from all but the Department of Manual Training. After waiting for three months for this, we must go to press without it. The list of members enrolled was not all in the hands of the Treasurer in time for the January number. It will be found in full in the pamphlet report of proceedings.

It was our purpose to publish this list in *The Journal*, but it seems enough to give it complete in the pamphlet report, a copy of which will be sent about April 20th to each member enrolled, comparatively few of whom will receive this number of *The Journal*. The total enrollment at the Philadelphia meeting was 2,887.

EDITORIAL DEPARTMENT.

THE SCHOOL JOURNAL.

LANCASTER, APRIL, 1912.

N. C. SCHAEFFER. - - - - J. P. McCASKEY.

SINCE our last issue two distinguished educators have gone to their reward in the other world, namely: Dr. J. R. Flickinger, principal of the Lock Haven State Normal School, and Dr. Joseph S. Walton, principal of the George School, a flourishing institution near Newtown, Bucks Co. Both of these men rendered distinguished service as county superintendents, the former in Perry county and the latter in Chester county. Dr. Flickinger served in the Pennsylvania Legislature and later in that of Colorado where he was a leader in the most critical session in the history of that State. He returned to his native state, became professor of history in the West Chester State Normal School, principal of the Edinboro State Normal School, and ended his career at Lock Haven where his work as an executive was most effective.

Dr. Walton was likewise a professor of history in the West Chester State Normal School. He distinguished himself as an executive at the head of one of the large Friends' Schools in Philadelphia, and later as principal of the George School which flourished as never before during his administration. The world is better by reason of the good work which these Christian educators accomplished.

The death of Supt. Stephen A. Thurlow, of Pottsville, on January 4, came with a shock of surprise to his many friends. He was a good man, doing good work, and he has died all too soon. Supt. J. R. Tallman has been elected to succeed him in this office of high responsibility.

THE superintendency of Greater Pittsburgh, including Pittsburgh and Allegheny City, has been filled by the election of S. L. Heeter of St. Paul to serve a four-year term at a salary of $9,000 per annum. Mr. Heeter was born in North Manchester, Indiana, in 1870; he graduated from the Indiana Normal school and the University of Chicago, served for twelve years as a grade teacher, high school principal, and superintendent in his home state, was assistant superintendent under C. M. Jordan in Minneapolis for two years, and he has just ended his sixth year as superintendent of the St. Paul schools. His special interest has always been in the grammar grades, but the list of innovations in the other departments in the St. Paul schools under his regime is a long one—the simultaneous construction of four modern high schools at a cost of $1,500,000, construction of many elementary schools to meet adequately the demands of the growing city, installation of modern heating, ventilating, plumbing, cleaning, and drinking apparatus; establishment of a parental school and detention home for chronic truants and delinquents; elementary industrial schools for young boys who are preparing to go to work; part-time continuation schools on a small scale; thoroughly organized vacation schools; school gardens; summer high and grammar schools; medical inspection; school nurses; ungraded rooms; rooms for backward pupils; evening schools;—in fact almost every feature of the modern cosmopolitan school system has been tried under Mr. Heeter's direction. He began work, March 1st, in Pittsburgh. We welcome Supt. Heeter most cordially to Pennsylvania. Supts. Samuel Andrews and John Morrow continue in their old places as assistants to the new chief.

A RECENT statement from the Census Bureau shows that in 1910 there were 71,580,270 persons ten years of age or over in the United States of whom 5,517,608 were unable to read or write, constituting 7.7 per cent. of the population. The native whites who constituted nearly 75.0 per cent. of the entire population had the smallest number of illiterates 1,535,530, or 3.0 per cent.

TO SCHOOL DIRECTORS.

SUBSCRIBING FOR THE SCHOOL JOURNAL.

IT is essential to the best interests of the schools that School Boards and School Directors should be in as close touch as possible with the central office at Harrisburg, for suggestion, direction, and encouragement towards better schools in the District. More than fifty years ago this necessity forced itself upon the attention of the school authorities of the State, but it was not met satisfactorily until THE PENNSYLVANIA SCHOOL JOURNAL was, in 1855, made by law the official organ of the School Department, and sent monthly as a means of intercommunication between the Department and every school district of the Commonwealth.

As the official organ of the Department of Public Instruction, this journal has

always contained the latest school legislation; the official decisions necessary at times in the interpreting and enforcing of the school law; full reports of the proceedings of the Pennsylvania State Educational Association, of the annual Conventions of Superintendents, and of the annual meeting of the Pennsylvania State Directors' Association, all of which is matter that should be in the hands of as large a number of school directors as possible; also, a very large body of matter of general educational interest, suggestive, instructive and in every way profitable; notes of school life and progress reported by the Superintendents to the Department of Public Instruction from all parts of the State; and much other matter helpful in many ways to the school work in Pennsylvania—making a yearly volume of large size and great value of nearly six hundred large double-column pages. Much of this matter, including all the reports of these educational associations, is to be found only in THE SCHOOL JOURNAL.

The only continuous history, and the only one that makes any approach to completeness, that is now in existence anywhere, of the work of the School Department of the State since 1854 is found in THE PENNSYLVANIA SCHOOL JOURNAL—all the archives of this department of the State government, which had been carefully preserved for so many years, having been destroyed in the fire which destroyed the Capitol building some years ago. That these historical records are not now wholly lost is due solely to the fact that THE PENNSYLVANIA SCHOOL JOURNAL has all along been the Official organ of the Department, and as such has kept this record intact and beyond the reach of destruction from any cause whatsoever. In this fact alone THE JOURNAL has been worth to Pennsylvania more than all the money that has ever been appropriated for payment of subscriptions for the Secretaries of School Boards.

THE SCHOOL JOURNAL was made the official organ of the School Department by Hon. Andrew G. Curtin and State Superintendent Henry C. Hickok, men who rendered great service to the school system, and who knew well the value of this agency. Their action has been recognized and approved by every administration since their day. The wisdom of the measure is evident in many ways, not only in constant support and gain to the system but also in the fact —of which the State has good reason to be proud—that Pennsylvania has a more complete and better record in the files of her State SCHOOL JOURNAL, of the development of her system than is had by any other State in the Union, and this for simple reason that it has, for so long a period, been the official organ of the State Educational Department.

The School Department, in order to reach every school district monthly with official and other matter of general interest to the schools, has subscribed for a given number of copies, because that has been found a cheaper and more effective means than any other of securing needed service—and this for more than fifty years, under both political parties, approved all the while by the best practical judgment that has at any time had control of our school affairs. The State is simply paying for "supplies and service rendered," the same as for coal in the furnace of the Capitol building and service at the desks of those on duty in the various departments of the State government. Fifty-two years subscription under all school and State administrations in Pennsylvania represents the wise purpose of many of the best and ablest men who have at any time rendered unselfish service to the State, and establishes one of the strongest precedents known to the history of the Commonwealth.

There is probably no hundred thousand dollars of any general school appropriation—this is the view expressed by many of the best school men of the State who are the most competent to judge of the value of agencies at work in this field—that has equalled in actual benefit to the schools this twenty-five hundred dollars appropriated annually in a way so helpful toward the truest end of school work. That high end and purpose is scattering of good seed in a fertile soil, over the entire educational field in Pennsylvania. Taking root here and there, now and again, in all parts of the State, through all these years, this good seed has sprung up and borne fruit, "some sixty, some an hundred fold." And what is true of the past should be equally true of the future.

Back numbers on the current (60th) volume can still be supplied either from July or January. The New School Code is given in full in the July number.

N. E. A. AT CHICAGO.

THE next meeting of the National Education Association will be held in Chicago, July 6–12. There should be a good representation from Pennsylvania, when it comes so near home, and it will be large. Plans to make this Fiftieth annual meeting a gathering of unusual interest and significance were discussed at the Chicago Association of Commerce, March 27, the speakers being President Carroll G. Pearse of the N. E. A.; Mrs. Ella Flagg Young,

Superintendent of Chicago Schools, and Dr. Nathaniel Butler, Dean of the College of Education of the University of Chicago. The last visit of the Association to Chicago was twenty-five years ago, the meeting at that time being a notable one, and the belief was expressed that the forthcoming convention would be a record meeting.

"We come to Chicago after an interval of twenty-five years," said President Pearse. "In 1887 a great meeting was held in Chicago, which was not surpassed in enthusiasm or interest for years following. This year we come together for the fiftieth time and we are glad that it is to be in Chicago. This great country of ours has no central authority to shape its educational policies. Illinois has one system of public education, Indiana another; Wisconsin has one different from either of these, and Massachusetts still different from any of the others. In spite of this fact, one of the features of educational methods in this country which particularly impresses visitors from abroad, is the unity of the plans and the administration in educational affairs of the United States, leading to the conclusion that this great institution, the National Education Association, which year by year has discussed the educational questions of the hour, has done more to unify and standardize the methods of education and organization of school systems, than any other single thing."

"I glory in the fact that every public school system in this country stands for the locality in which that system is conducted," said Mrs. Young, "and yet we all recognize that it is a remarkable condition of affairs that in the essentials and fundamentals the public schools of our various cities agree. This has been brought about mainly by the National Education Association. Every year for fifty years there have gathered teachers, superintendents, college heads and professors, kindergarteners, music teachers, teachers of physical education, and now the mothers from the Mothers' Clubs all over this country, to discuss for one week the means of advancing the particular line of thought and work in which each department is engaged. There are altogether seventeen departments. Coming together as they do, listening to the presentation by leaders of the different lines of thought, and taking part in that discussion, there is brought about a great unification in thought and in effort throughout this country. The Association of Commerce has done a great deal for the Chicago schools in its successful efforts to bring the National Education Association here next summer."

FIRST YEAR HIGH SCHOOL.

THE transition from the elementary to the high school presents problems that are well recognized. Those problems have been attacked in a variety of ways, and the notable experiment in progress in Dayton, Ohio, is an illustration of one of them. The description following was written by Mr. J. H. Painter, principal of the School.

Mr. E. J. Brown, superintendent of schools of Dayton, Ohio, has recently made an interesting experiment by opening a special high school for the first-year pupils. Supt. Brown believes that pupils of this grade require more careful attention than do older high-school pupils. This "first-year high school" is an attempt to bridge the gap between the grade schools and the high school. The child on entering high school is bewildered by the strange conditions and environments and by the number of new subjects and new teachers; he needs the inspiration and guidance of broad-minded and sympathetic teachers. The transition is made less abrupt by assigning a class of pupils to a teacher in two subjects and by a system of faculty advisors, whereby each pupil is assigned to a member of the faculty who looks after the child, advises him in the selection of studies, and tries to acquaint himself with the home conditions of the pupil. Thus the child feels that he is not lost in the number; that he has some one who is interested in him and ready to hear his complaints, to advise, and, if necessary, to assist him.

There is a tendency on the part of older high-school pupils to overdress and to adopt the styles and fashions that make them seem more mature in nature and appearance. The younger pupils are quick to imitate the dress and manners of their older schoolmates. This leads them into indiscretions and robs them of an important part of childhood. The expense of overdressing falls heavily upon most families and tends to discourage many parents from keeping their children in school. In this school, however, there are no older pupils, and the simplicity of childhood is maintained in dress and manner for another year. The children are able to develop more naturally without the influence of older pupils.

The school is housed in a new building, which contains woodworking shops, turning and drawing rooms, cooking and sewing rooms, and biological laboratories. The course of instruction consists of the usual studies for this grade, and includes English, algebra, Latin, German, business English, business arithmetic, drawing, woodwork,

including cabinetwork and turning; cooking, sewing, and science, which includes elementary physics and chemistry; botany and biology.

In the regular high schools the first-year pupils rarely have an opportunity for any school activity outside their daily lessons. There is no time in the child's life when a diversity of activities is more needed. It is the aim of this school to have each pupil interested in something outside of his daily lessons. As far as possible each pupil is so employed that he feels that the good name and future of the school, in some respects, rests on him. This develops school spirit and trains the child in the habit of doing his part in any undertaking. To this end many school activities are encouraged. Teams are organized in the usual high-school games, such as football, baseball, basketball, and track. Since it is difficult to schedule games with boys of an equal age, the first-year boys lose a majority of the games, but they are taught to play the game fairly and openly for its own sake, rather than to win at any cost. About two hundred girls are in the calisthenics classes, which practice twice a week. This work is doing much to develop grace of movement and health of body. A large number of girls are enrolled in the literary societies, which are doing excellent work. The membership of one section consists entirely of colored girls. The boys maintain an old-fashioned society for extemporaneous speaking, debating, and parliamentary practice. All the societies are open to any member of the school who has passing grades in his studies. Each society is under the care of a teacher. About thirty boys and girls belong to the orchestra, which meets for practice once each week.

The English classes of the school publish a school paper, which has stimulated interest in the composition work of the English classes by furnishing an incentive for effort. It also sets a standard for merit. The effect on the English work is plainly visible.

Soon after its organization the school began to serve luncheon to the pupils at approximate cost of food and service. The Board of Education converted an attic storage room into a most artistic and attractive dining room. The rough rafters and side walls, stained in soft colors, the mission tables and benches, and the quaint mission lamps unite to give the room a most pleasing appearance. While the pupils are eating their luncheon they may listen to the best in music, played on the Pianola or Victrola.

Frequently assemblies are held, at which matters of interest to the school are presented by some members of the student body. This stimulates oral work in the classrooms and literary societies. In this school the first-year pupil is not crowded out by the older and more experienced classmen, but is given every chance for testing his capabilities and developing his individuality. This treatment promotes a wonderful school spirit, for each feels a personal interest and pride in a school in which he has so great a part. Every school affair is an assured success, for each pupil works and boosts for the school. Little is said or heard about government or discipline. The motto of the school is "Self Control." From the time he enters the building until he leaves, each child is busy with his studies or is interested in some school affair. He works off or plays off his surplus energy and the discipline takes care of itself.

The school opened its first year with an enrollment of 565. The second year opened with an attendance of 705, an increase of about 25 per cent., after one year's experience. The enrollment of the eighth-grade pupils at the end of the school year 1911 was 668. Of these 646, or 96 per cent. of the whole, entered the first-year high school A number of children were also enrolled from the private schools. The adaptation of the school to the condition and needs of first-year pupils, the diversity of interests, the opportunity for the development of the individuality of the first-year pupil, seldom possible in the regular four year high school, the sympathetic attitude of the teachers, have enabled the school to hold a very large percentage of its pupils through the first year. Only removal from the city, sickness, or dire necessity has caused any appreciable number of withdrawals. Practically the entire first-year class passed on and entered the second year.

BOARDS TAKING THE JOURNAL.

THE law of the State under which *The Pennsylvania School Journal* is made the official organ of the Department of Public Instruction may be found in the Pennsylvania School Laws and Decisions, as follows:

CCL. That *The Pennsylvania School Journal* shall be recognized as the official organ of the Department of Common Schools of this Commonwealth, in which the current decisions made by the Superintendent of Common Schools shall be published free of charge, together with all official circulars, and such other letters of explanation and instruction as he may find it necessary or advisable to issue from time to time, including his annual report; and the Superintendent is hereby

authorized to subscribe for one copy of said *School Journal*, to be sent to each Board of School Directors in the State, for public use, and charge the cost thereof to the contingent expenses of the Department of Common Schools. (See Act May 8, 1855, sec. 9, Pamphlet Laws, p. 511.)

167. *The Journal* is the official organ of the Department of Public Instruction, and the decisions, advices, explanations, construction and information, with the instructions and forms published in the official department of it, are of equal authority and force as if they were contained in this digest.

168. The copy sent to the Secretary of each District at the cost of the State is to be laid before the Board at the next meeting after its receipt, and the file thus received is to be preserved by the secretary and handed to his successor.

169. Each Board has the right to subscribe for one copy of *The Journal* for each member, at the cost of the District, as a means of information in relation to the duties of their offices, and the general condition and operations of the system in other parts of the State.

The following is the list of School Boards from the different Counties of the State on *The Journal* subscription list on the sixtieth volume which ends with the June number, 1912:

Adams.—Butler and Fairfield.

Allegheny.—Bethel, Brackenridge, Braddock Twp., North Braddock, Chartiers, Cheswick, Crafton, West Deer, Dormont Boro, Duquesne, East Pittsburg, Edgewood, Elizabeth Boro, Elizabeth Twp., West Elizabeth, Emsworth, Forward, Green Tree, Hampton, Kennedy, Knoxville, Lincoln, McKeesport, Mt. Oliver, Munhall, Oakmont, O'Hara, Penn, Pitcairn, Port Vue, Rankin, Robinson, Ross, Scott, Shaler, Snowden, Springdale, Lower St. Clair, Upper St. Clair, Turtle Creek, Union, Verona, Versailles Twp., West View, Wilkins, Wilkinsburg, Wilmerding and Wilson.

Armstrong.—Apollo, Brady's Bend, Freeport, Leechburg and Parks.

Beaver.—Ambridge, Bridgewater, Conway, East Rochester, Economy and Hanover.

Bedford.—Broad Top, Hyndman, Kimmel, Liberty, West Providence and South Woodbury.

Berks.—Lower Alsace, Bern, Boyertown, Exeter, Fleetwood, Heidelberg, Lower Heidelberg, Marion, Mount Penn, Ontelaunee, Richmond, Robeson, Spring, Union and Womelsdorf.

Blair.—Allegheny, Antis, Altoona, Bellwood, Duncansville, Frankstown, Freedom, Greenfield, Holidaysburg, Huston, Juniata Boro, Logan, Martinsburg, Roaring Spring, Snyder, Taylor, Tyrone Boro, Tyrone Twp., Woodbury and North Woodbury.

Bradford.—Athens Twp., Canton Twp., Franklin, Monroe Twp., Orwell and Sayre.

Bucks.—Bensalem, Bristol Boro, Bristol Twp., Doylestown, Falls, Hilltown, Ivyland, Upper Makefield, Middletown, Milford, New Britain, New Hope, Newtown Boro, Newtown Twp., Nockamixon, Northampton, Perkasie, Plumstead, Quakertown, Sellersville, Springfield, Warrington, Wrightstown and Yardley.

Butler.—Adams, Bruin, Butler Boro, Clay, Donegal, Jefferson, Parker, Penn, Slippery Rock Twp. and Winfield.

Cambria.—Brownstown, West Carroll, Cresson, Dale, East Conemaugh, Conemaugh Twp., Gallitzin, Johnstown, Munster, Patton, Portage Twp., Reade, Richland, Stony Creek and Summerhill Twp.

Carbon.—Banks, Lansford, Lehighton, Mauch Chunk Boro, Mauch Chunk Twp., Packer and Weatherly.

Centre.—College, Curtin, Gregg, Haines, Harris, Philipsburg, Potter, Rush, State College and Walker.

Chester.—East Bradford, Charlestown, East Coventry, North Coventry, Easttown, East Fallowfield, West Goshen, Highland, London Grove, West Nottingham, Penn, Phœnixville, Sadsbury, Spring City, Tredyffrin, Valley, East Vincent, West Chester and Willistown.

Clarion.—Clarion Twp., Hawthorn, Limestone, Mill Creek, Piney, Redbank and St. Petersburg.

Clearfield.—Bell, Bigler, Bradford, Cooper, Du Bois, Huston, Sandy and Woodward.

Clinton.—Chapman, Renovo and South Renovo.

Columbia.—Berwick, Bloomsburg, Catawissa Boro and Scott.

Crawford.—Bloomfield, E. Fallowfield, Greenwood, Rome, South Shenango, Union and Vernon.

Cumberland.—Upper Allen, Carlisle, South Middleton, Monroe, Mount Holly, Penn and Shippensburg.

Dauphin.—Derry, East Hanover, West Hanover, Highspire, Hummelstown, Lykens Boro, Middletown, Millersburg, Upper Paxton, Royalton, Steelton, Susquehanna, Upper Swatara, Wiconisco and Williams.

Delaware.—Aldan, Colwyn, Darby Boro, Upper Darby, Middletown, Millbourne, Rutledge, Upland and Yeadon.

Elk.—Highland and Spring Creek.

Erie.—Corry, Erie City, Fairview, Mill Creek and North East Twp.

Fayette.—South Brownsville, Connellsville Twp., Dawson, Franklin, Jefferson, Luzerne, Menallen, Nicholson, Perry, Redstone, Springhill, Stewart, Upper Tyrone, North Union, Uniontown and Washington.

Forest.—Barnett and Tionesta Twp.

Franklin.—Peters and St. Thomas.

Greene.—Cumberland, Dunkard, Jefferson Twp., Morgan, Morris, Rice's Landing, Rich Hill, Waynesburg and Whiteley.

Huntingdon.—Porter, Shirley and Warrior's Mark.

Indiana.—Centre, Cherry Hill, Conemaugh, South Mahoning and Saltsburg.

Jefferson.—Henderson, McCalmont, Punxsutawney, Sykesville, Washington and Young.

Juniata.—Fayette and Mifflintown.

Lackawanna.—South Abington, Blakely, Carbondale Boro, Covington, Dickson City, Fell, Jefferson, Jermyn, Moscow, Newton, Old Forge, Ransom, Scranton, Taylor and Vandling Boro.

Lancaster.—East Cocalico, West Cocalico, Columbia, Conoy, East Donegal, West Donegal, Earl, East Earl, West Earl, Elizabethtown, Ephrata Boro, Ephrata Twp., East Hempfield, West Hempfield, West Lampeter, Lancaster City, Lancaster Twp., Leacock, Upper Leacock, Lititz, Manheim Boro, Manheim Twp., Manor, Marietta, New Holland, Paradise, Penn, Pequea, Providence, Strasburg Boro, Strasburg Twp., and Warwick.

Lawrence.—North Beaver, Pulaski and Wilmington Twp.

Lebanon.—Annville, North Annville, Jackson and South Lebanon.

Lehigh.—Catasauqua, Emaus, Lower Macungie, Lower Milford, Slatington, Washington, Whitehall and North Whitehall.

Luzerne.—Butler, Conyngham Twp., Edwardsville, Fairmount Twp., Hazleton, Hughestown, Jenkins, Nanticoke, Sugar Loaf, Wilkes-Barre and Wyoming.

Lycoming.—Hepburn, Limestone and Muney Creek.

McKean.—Bradford City, Eldred, Hamlin, Keating, Lafayette and Wetmore.

Mercer.—Delaware, Hempfield, Mill Creek, New Lebanon, New Vernon, Pine, South Sharon, Sheakleyville, Shenango and Worth.

Monroe.—Chestnut Hill, Coolbaugh, Paradise, Smithfield and East Stroudsburg.

Mifflin.—Derry and Menno.

Montgomery.—Ambler, Cheltenham, West Conshohocken, Hatboro, Horsham, Jenkintown, Lansdale, Lower Merion, Moreland, Norristown, Plymouth, Lower Providence, Royersford, Lower Salford, Skippack, Springfield and Whitemarsh.

Montour.—Danville.

Northampton.—Allen, Bangor, Bath, Bethlehem, South Bethlehem, Easton, Freemansburg, Hellertown, Northampton, Northampton Heights, North Catasauqua, Pen Argyl, Lower Saucon, Stockertown, Walnutport, Williams and Wind Gap.

Northumberland.—Upper Augusta, East Chillisquaque, West Chillisquaque, Coal, Delaware, Jackson, Lewis, Mt. Carmel, Mt. Carmel Twp., Shamokin, Turbett, Watsontown and Zerbe.

Perry.—Marysville, Oliver and Penn.

Pike.—Dingman, Greene and Matamoras.

Potter.—Abbott, Allegheny, Eulalia, Galeton, Pike, Sylvania, Ulysses and West Branch.

Schuylkill.—Branch, Delano, Frailey, Gordon, Mahanoy City, Mahanoy Twp., Palo Alto, Porter, Pottsville, Tamaqua, Tremont Twp., Tower City and East Union.

Snyder.—West Beaver and Selinsgrove.

Somerset.—Boswell, Brothers Valley, Elk Lick, Hooversville, Paint Twp., Somerset Boro, Somerset Twp. and Summit.
Sullivan.—Eaglesmere.
Susquehanna.—Forest City, Harford, New Milford Twp., Springville and Susquehanna.
Tioga.—Charleston, Duncan, Elk, Farmington, Gaines, Liberty Boro, Richmond and Wellsboro.
Union.—Lewis, Lewisburg, Mifflinburg, New Berlin and White Deer.
Venango.—Cherry Tree, Cornplanter, Cranberry, Richland, Rockland and Sandy Creek.
Warren.—Conewango, Eldred, Elk, Freehold, Glade, Grand Valley, Kinzua, Limestone, Mead and Watson.
Washington.—Amwell, Bentleysville, West Bethlehem, South Canonsburg, Cecil, Charleroi, Chartiers, Deemston, Fallowfield, West Finley, McDonald, Morris, Mount Pleasant, Peters, Pike Run East, Pike Run West, Robinson, Smith, Somerset, North Strabane and South Strabane.
Wayne.—Hawley.
Westmoreland.—Allegheny, Derry, Southwest Greensburg, Hempfield, North Huntingdon, East Huntingdon, Latrobe, Ligonier Twp., Loyalhanna, Monesson, Mt. Pleasant Boro, Penn Boro, Salem Twp., Sewickley, Sutersville, Unity, Vandergrift, Youghiogheny and Youngwood.
Wyoming.—Bramtrim, Factoryville, Nicholson and Noxen.
York.—Chanceford, East Hopewell, Manheim, Monaghan, Springettsburg and North York Boro.

ITEMS FROM REPORTS.

ARMSTRONG.—Supt. Patton: Our directors' convention was made especially profitable by Dr. Schaeffer, who at each session answered perplexing questions relating to the School Code. The work of grading and classifying our country schools is retarded by lack of closer supervision. The employment of supervising principals over a certain number of country schools should be made compulsory by law. Closer supervision must come before the country schools can be brought up to the efficiency desired.

BEAVER.—Supt. Locke: Much interest has been aroused by the local meetings throughout the County. Nearly all the superintendents and principals have attended and greatly assisted.

CAMERON.—Supt. Plasterer: A Parent-Teachers' association has been organized in Emporium.

CLINTON.—Supt. McCloskey: A number of our school principals have accepted the kind offer made by the State Department of geographical slide-views for illustrating subjects in geography and travel. They are holding educational meetings in the school houses of their districts. These meetings have been well attended by both pupils and patrons. Many teachers have been holding entertainments in their school rooms to raise money to buy books and pictures. Parents' Day was observed by many teachers throughout the county with good results. A local institute was held in the borough of Avis with a large attendance. The public school building at Mackeyville was destroyed by fire on January 19 with a total loss of books and furniture. The school board have opened school in the basement of one of the churches of the village. The fire was caused by an overheated stove.

CRAWFORD.—Supt. Blair: The following meetings were held during the month: Farmers' institutes at Blooming Valley and Spartansburg; the county principals and high school teachers' association in the court house; a district teachers' institute at Linesville; and a local institute at Mosiertown.

ERIE.—Supt. Russell: A class in agriculture, consisting of twenty-nine members, was recently organized in the North East boro high school. Principal Deming has charge of the work and purposes to devote two periods per week to laboratory work; and in the spring some practical tests will be made upon a plot of ground which has been secured for that purpose. We believe this is a splendid location for a strong agricultural high school, and with the present enthusiasm of teacher and pupils and the cordial support of the township patrons we bespeak for it a brilliant future.

FULTON.—Supt. Lamberson: The Code seems to have created an interest among directors that did not exist before. Several local institutes were held in different sections of the county, with crowded houses in each instance. They are creating greater activity among the teachers. There is a great demand for copies of the Code. People in general seem to be interested in knowing what is required. The action taken by the State Board of Education seems to be having a good effect. Several of the boards are already talking about the building of new and better houses.

HUNTINGDON.—Supt. Dell: Three local institutes were held; all good meetings. The directors' convention was attended by one hundred and fifty directors.

LACKAWANNA.—Supt. Taylor: Agriculture is now taught in all rural high schools, and also in the 7th and 8th grades in our township and district schools. Marked improvement in writing is observed in nearly all districts since the introduction of the free movement system; but we still have some teachers who have neglected to prepare themselves to teach this branch. More attention should be given to common branches, especially to penmanship, by the normal schools. The wretched penmanship of some normal school graduates is disgraceful.

MIFFLIN.—Supt. Wills: Sixty of our seventy-four directors attended the annual convention. Dr. N. C. Schaeffer made two splendid addresses. On February 13, Mr. Elmer B. Fry, a school director of McVeytown, died. He was about forty years of age. He was a worthy man and a useful citizen and his death is sorely lamented. The County Teachers' Association met during the month. Dr. Woodruff, of Susquehanna University, lectured on "Nature and Nurture."

MONROE.—Supt. Koehler: The new high school of Stroudsburg recently dedicated is one of the most up-to-date buildings in northern Pennsylvania. It cost about $55,000.

NORTHUMBERLAND.—Supt. Mauser: Our local institutes are becoming more interesting. They are no longer dependent upon "visiting instructors" to do the work. Many of the local teachers, mostly country teachers, are becoming good instructors themselves, take an active part in the discussions, and show that they are better read and more deeply interested than formerly.

TIOGA.—Supt. Retan: Seven local institutes were held during the month. The papers were excellent and much interest was taken in the discussions. The teachers, with but few exceptions, performed the work assigned them.

UNION.—Supt. Spigelmyer: The directors' convention was well attended and much interest was manifested. I find that the new members in some of the boards have put new life into things. They are visiting the schools to note conditions, etc.

WASHINGTON.—Supt. Crumrine: Three local educational meetings were held, which were well attended by teachers and directors. The last meeting of the Principals' Round Table was addressed by Prof. Edward Rymarson of Pittsburgh. Thirty-four principals and high school teachers were in attendance. Ellsworth is now occupying its new eight-room building.

ARCHBALD.—Supt. Kelly: Our present board is composed mostly of young men. Their clean-cut method of conducting meetings, and the progressiveness that each member manifests must show results in greatly improved conditions.

BRADFORD CITY.—Supt. Schermerhorn: Some time ago one of our public spirited citizens offered to equip a sewing room if the board would introduce a course in domestic art. Classes in hand-sewing have already been organized under the direction of Miss Rose, our domestic science teacher. It is expected that the above offer will be accepted and the room equipped for next year's work.

CHARLEROI.—Supt. Pentz: We now have a four-year high school course. It is our purpose to maintain classical, scientific, commercial and manual arts courses. Charleroi is the only district in Washington county that has medical inspection. It is our purpose to adapt the instruction to the needs of those who are found defective. Literary exercises are held semi-monthly throughout the schools. We have put our high school athletics on a basis of systematic control, the main features of which are as follows: To be eligible to play on any team a pupil must have not less than 75 per cent. in four studies, and not less than 65 in the remaining fifth study. If the grades fall below this standard for any week, the pupil cannot play the following week. If the grades fall below this standard for any month, he cannot play the following month. A grade in conduct of less than 85, even though the studies are all above the passing grade, will also bar a pupil. Our aim is to have clean athletics and have it regarded as an honor to play on the teams. We want only pupils of good standing in studies and conduct to represent the Charleroi schools in public both at home and abroad.

DANVILLE.—Supt. Dieffenbacher: A new interest has been awakened in the subject of drawing, which for several years had been dropped from our course of study. Miss McQuiston of the Bloomsburg Normal School, has been elected a special teacher and supervisor in this work.

HARRISBURG.—Supt. Downes: Our board has authorized the establishment of an open air school. A committee was sent to study the operation of such schools in several eastern cities, and the board's action is the outcome of the report of this committee.

LANCASTER.—Supt. Harbold: The school board has decided to establish a school for defective children, or children who are hopelessly behind their grades. It will not be known by that name. The building will be equipped with manual training apparatus of all kinds to meet the various needs of the children.

LANSFORD.—Supt. Kuntz: Under a rule of the school board a system of daily reports of teachers to the superintendent and board of directors has been instituted, the better to enable the school officials to keep in touch with the daily work of the schools. A beginning has been made in a plan to equip all our school buildings with vacuum cleaners.

LOCK HAVEN.—Supt. Ling: Teachers are conducting successfully a course of University Extension lectures. The superintendent and members of the high school faculty met with the normal school faculty upon invitation in a very profitable session. The new school board has started in upon its work in business-like fashion. We look for a careful but progressive administration of the schools. An additional $1500 of indebtedness was paid off by the old board just prior to the organization of the new.

PUNXSUTAWNEY.—Supt. Jackson: The work of medical inspection is resulting in great good to the individual pupils. Objections on the part of patrons are few and many express their appreciation. Glasses for defective eyes, tooth-brushes for unclean teeth, open windows in many sleeping apartments at night, correction of conditions of malnutrition, removal of adenoids and hypertrophied tonsils, and treatment of running ears are some of the more common benefits.

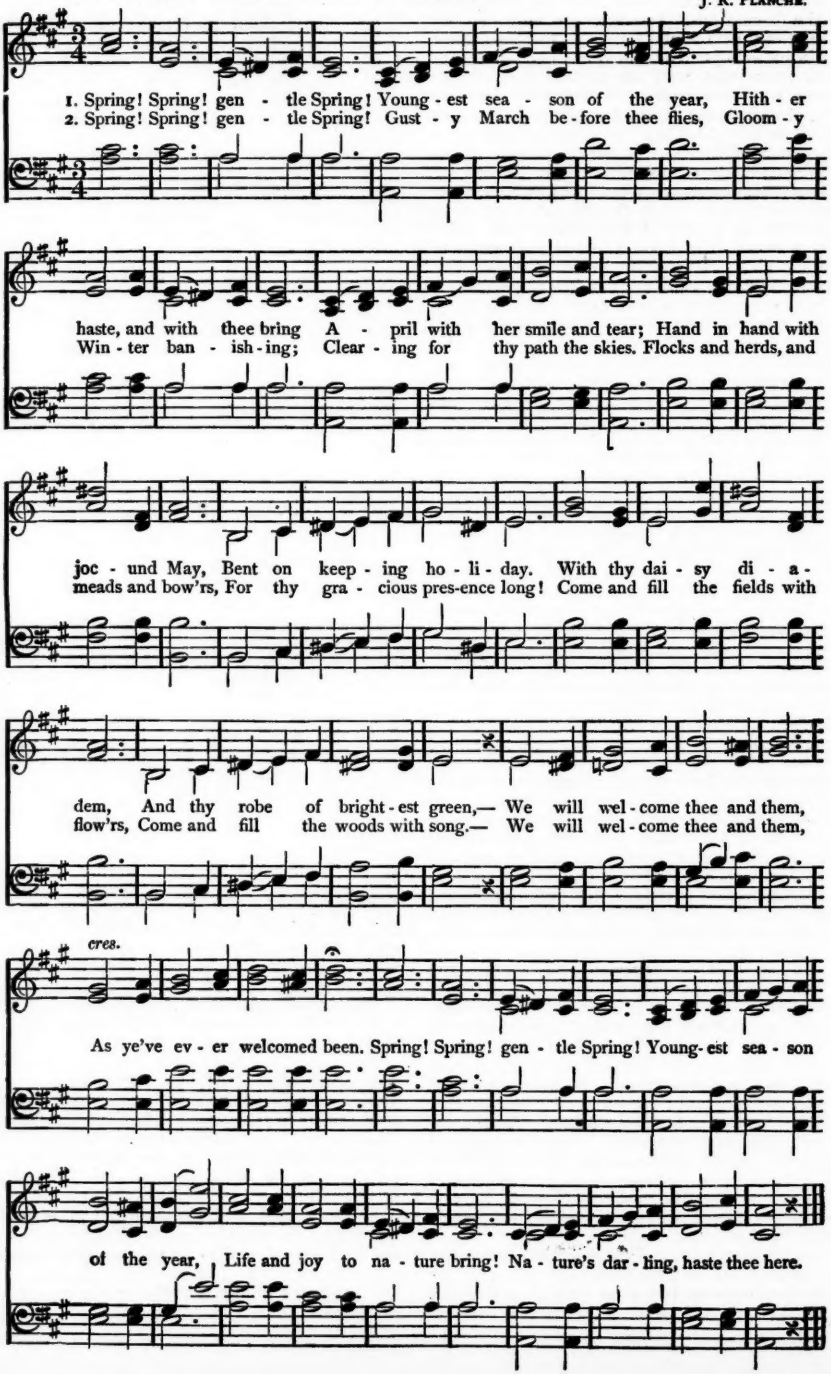
ROCHESTER.—Supt. Taft: We had the following entertainments: Chalk talk by Miss Beatrice Weller, lecture on Japan by Mr. Yamamoto, an evening with Ralph Bingham, and a lecture by Judge George Alden.

SOUTH SHARON.—Supt. Eckles: Our high school is maintaining a fine lecture course of five numbers this year. Besides securing funds enough to pay for the course, over $100 will be available for the purchase of a teachers' library of educational works. We believe such a library will be of great value to the schools.

TYRONE.—Supt. Fleck: Half our teachers were enrolled as members of the State Educational Association which met in Philadelphia. They meet as a body once every two weeks, and are now studying Colgrove's "The Teacher and the School." The high school auditorium was opened by the Ben Greet Players in the Merchant of Venice. Our second entertainment in the auditorium was a lecture by Dr. S. D. Fees on the "Humanity of Lincoln."

Lincoln day and Washington's birthday were both observed by appropriate exercises in the high school, and in all of the grade schools on February 22. Eleven hundred and fifty visitors were in the schools on the afternoon of that day.

SPRING, GENTLE SPRING!

J. RIVIERE.
J. R. PLANCHE.

1. Spring! Spring! gen - tle Spring! Young - est sea - son of the year, Hith - er
2. Spring! Spring! gen - tle Spring! Gust - y March be - fore thee flies, Gloom - y
haste, and with thee bring A - pril with her smile and tear; Hand in hand with
Win - ter ban - ish - ing; Clear - ing for thy path the skies. Flocks and herds, and
joc - und May, Bent on keep - ing ho - li - day. With thy dai - sy di - a -
meads and bow'rs, For thy gra - cious pres-ence long! Come and fill the fields with
dem, And thy robe of bright - est green,— We will wel - come thee and them,
flow'rs, Come and fill the woods with song.— We will wel - come thee and them,
cres.
As ye've ev - er welcomed been. Spring! Spring! gen - tle Spring! Young - est sea - son
of the year, Life and joy to na - ture bring! Na - ture's dar - ling, haste thee here.